

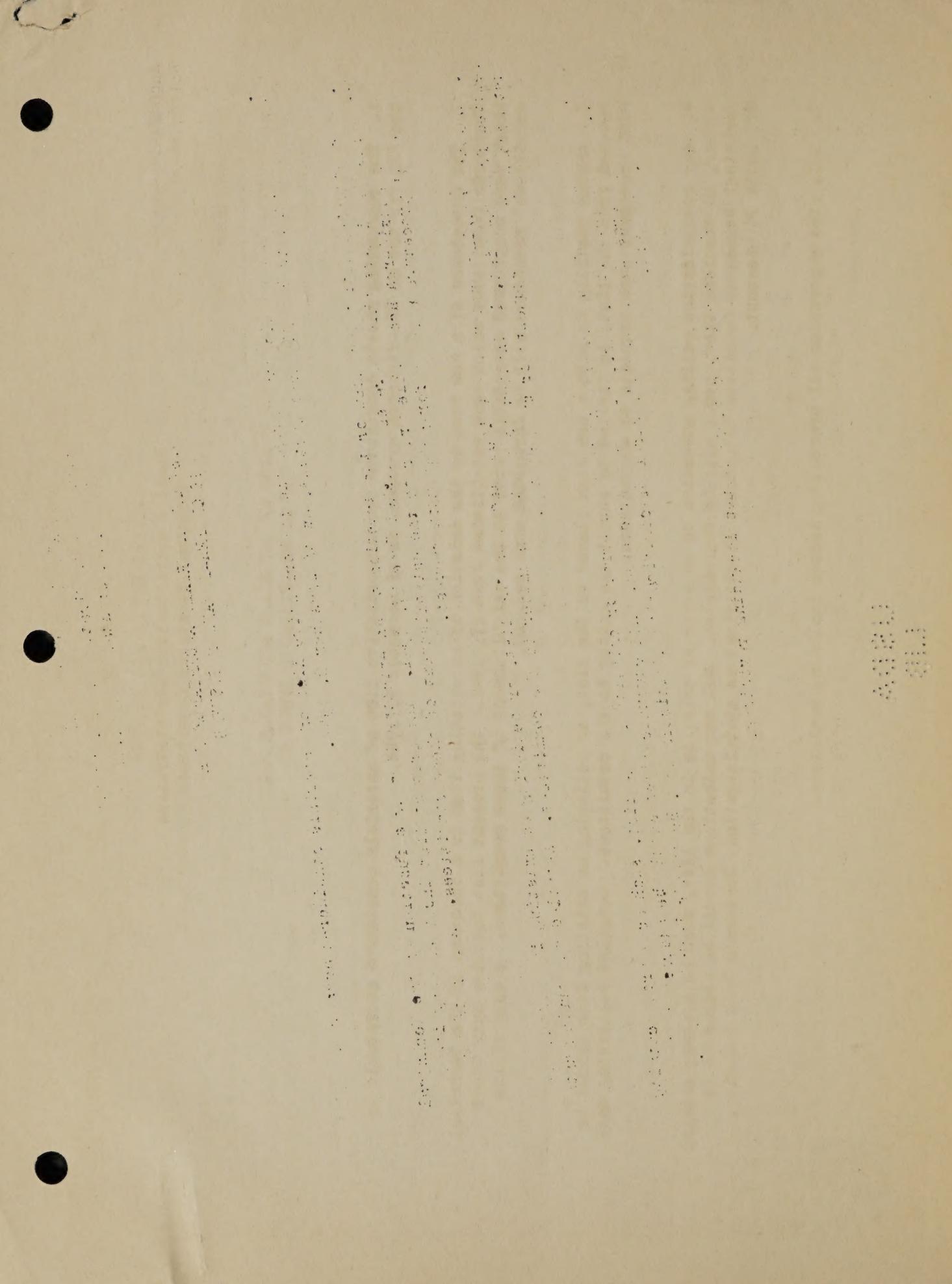
1.933
264

DEPARTMENT OF AGRICULTURE
Rural Electrification Administration
Technical Standards Committees

Reserve

LIST OF MATERIALS ACCEPTABLE FOR
USE ON REA-FINANCED SYSTEMS

1. The succeeding sheets constitute the authoritative list of materials considered acceptable by the REA for use on REA-financed systems, as of December 2, 1944.
2. The acceptance of a new item or the deletion of an existing item is a function of the Technical Standards Committees which were established June 27, 1941. The present list includes many items which were considered acceptable prior to the establishment of these committees. A copy of the committees' procedure will be forwarded upon request.
3. Anyone desiring to have a new item placed on the list, or believing an existing item should be removed from the list, is invited to submit the matter to the committees. Detailed supporting data must accompany such requests or suggestions.
4. Any communication calling attention to an error or omission in the list, such as a wrong catalog number, an obsolete item, etc., will be appreciated. All communications should be addressed to Technical Standards Committee "A", Rural Electrification Administration, Boatmen's Bank Building, St. Louis 2, Missouri.
5. This list supersedes all preceding issues including revisions.



INDEX

Anchors	2	Fuse links	ch
Bolts, carriage	cl	Gaps, lightning protection	cl
" , double arming	cl	Guy attachments	v
" , double upset, insulated	v	" guards	at
" , eye	at	" hooks	bj
" , machine	bj	" plates	bk
" , single upset, insulated	bk	Insulators, guy	w
" , thimbleye, angle	w	" , pin	a
" , " , straight	a	ba	cm
Braces, crossarm	cm	ba	k
" , sidearm, diagonal	h	" , spool	ae
" , " , vertical	ac	h	ae
Brackets, cutout and arrester	bb	lightning arresters	aa
" , pole, primary	ah	Nuts, eye	aa
Circuit Breakers, automatic oil	bc	" , thimbleye	ab
Clamps, anchor rod, bonding	be	Fins, crossarm, steel	f
" , deadend	ck	" , pole-top	b
" , ground rod	1	" , transformer	ad
" , guy	aj	Facks, service insulated	cf
" , hot line	a	Rods, anchor	x
" , loop deadend (For A.C.S.R.)	ap	" , ground	ai
" , suspension (For A.C.S.R.)	bn	Screws, lag	j
Clevises, secondary deadend, insulated	m	Snackles, anchor	bo
" , " , swinging, insulated	r	Sleeve, compression deadend	cp
" , service deadend, insulated	s	" , offset splicing	cq
" , " , swinging, insulated	bh	" , splicing, single oval tube	cx
Connectors, solderless	as	" , splicing, compression type	cy
Cutouts, fuse, single-shot, enclosed, distrib	p	" , splicing, double tube	cz
" , " , " , open, distribution	ci	Staples, ground wire	al
" , " , " , substation	af-2	Switches, pole-top	cg
" , " , three-shot, distribution	af-3	Thimbles, deadend (For A.C.S.R.)	bl
" , " , " , substation	ag-1	" , guy	bm
" , " , secondary	ag-2	Transformers	an
	co	Washers	d
		Wire holders	ar

a - Insulator, pin

KV Class:	Delta	Star	15	22	33	44	66
	5	7.2/12.5	15	22	33	44	
<u>Specifications:</u>							
Flashover, KV Dry	45	65	70	95	125	140	165
" , KV Wet	23	35	40	65	85	100	130
Leakage, Inches	4	7	7	12	20	26	31
Strength, Pounds	2500	2500	2500	3000	3000	3000	3000
Diam. Pin Hole, Inches	1	1	1-3/8	1-3/8	1-3/8	1-3/8	1-3/8
<u>Manufacturer:</u>							
Ill. Elec. Porc.	253	261	266	266	266	266	266
(1-piece)	---	---	---	---	---	---	---
(multi-part)	---	135	175	2027	2045	2055	3066
(high)	---	---	---	---	---	---	---
Jeffery-Dewitt	8	13	15	30	45	58	66-R
	---	10077	---	---	---	---	---
Pinco	401	63	1044	1123	1125	1128A	1128
	---	---	---	69	75	428A	428A
Lapp	6192	6184	7385	6179	5440	5940	6173
	---	---	---	---	---	---	---
Locke	995	10270	1227	1244	1244	1244	1244
	#66	---	1027	1044	1055	1066	1066
	77	88	---	---	---	---	---

(a)

(KV Class)	(5)	(7.2/12.5)	(15)	(22)	(33)	(44)	(66)
Ohio Brass (1 piece) (multi-part) (high)	12847	12848	12849	34546 33546	34623 33623	---	---
Porc. Prod.	---	---	34848	34849	33855	33552	---
Thomas	6187	6195	6198R	6034R 6134R	6033R 6133R	6137R	6138R
Westinghouse	1009	1177	1216	1917 2117	1924 2124	2126	3060
Victor	---	277	288	---	---	---	---
Pyrex	146	---	1012	881875	816625 2133	2144	3255
	968473	968474	---	---	---	---	---
	8	5	11	127 227	145 245	255	366
	---	---	17	18	---	---	---
	63	171	171	453	553	---	---

Note: Radio noise-proof insulators of the foregoing will be accepted on the same basis as their standard porcelain insulators.

b - Pin, pole-top, steel

Thread, (inches diam.)	1	1	1-3/8
Length, over-all (inches)	15*	18	24
Spacing (inches)	5	8	8

Manufacturer:

Hubbard

Formed pin	3162	3170	3049
1 $\frac{1}{4}$ " pipe pin	-	-	-
1 $\frac{1}{4}$ " pipe fixture	-	-	-
1 $\frac{1}{2}$ " pipe pin	-	-	3073
1 $\frac{1}{2}$ " pipe offset pin	-	-	-
1 $\frac{1}{2}$ " pipe fixture	-	-	-

Joslyn

Formed pin	583	2008	2011
1 $\frac{1}{4}$ " pipe pin	-	-	-
1 $\frac{1}{2}$ " pipe pin	-	-	1281

Line Material

Formed pin	SA28X8	12111	-
1 $\frac{1}{4}$ " pipe pin	-	-	-
1 $\frac{1}{2}$ " pipe pin	-	-	12151

Kortick

Formed pin	-	-	-
1 $\frac{1}{4}$ " pipe pin	-	-	-
1 $\frac{1}{2}$ " pipe pin	-	-	8122

Electrical Mfg. Co.

Formed pin	501	504	505A
------------	-----	-----	------

Catalog Number:

3

15*

18

24

Length

Manufacturer:

Catalog Number:

Formed pin
 $1\frac{1}{4}$ " pipe pin
 $1\frac{1}{2}$ " pipe pin

2034
-
-
2049
-
2073

Oliver Formed pin

- 3735

$1\frac{1}{4}$ " pipe pin
 $1\frac{1}{2}$ " pipe pin

- 1 -

Util. Service

L2332

1 $\frac{1}{4}$ " pipe pin
1 $\frac{1}{2}$ " pipe pin

36531	788	-
-	-	-
-	-	-
776	776	-

Seyler

Same numbers as Locke

* REA Standard

12244-b-2

c - Bolt, Machine

Length, inches	8	10	12	14	16	18	20	18	20	
Diam., inches	5/8"								3/4"	
Manufacturer:	Catalog Number:									
Hubbard	9808	9810	9812	9814	9816	9818	9820	9918	9920	
Joslyn	8808	8810	8812	8814	8816	8818	8820	8918	8920	
Line Material	9325	9326	9327	9328	9329	9330	9331	9346	9347	
Locke	8808	8810	8812	8814	8816	8818	8820	8918	8920	
Oliver	6108	6110	6112	6114	6116	6118	6120	6218	6220	
Util. Service	5181	5182	5183	5184	5185	5186	5187	5197	5198	
O'Leary	Order by size and description									
Mastergrip	M9808	M9810	M9812	M9814	M9816	M9818	M9820	M9918	M9920	
Inter. Derrick & Equipment Co.	14530	14531	14532	14533	14534	14535	14536	14551	14552	

(c)

Length, inches	8	10	12	14	16	18	20
----------------	---	----	----	----	----	----	----

Diam., inches

5/8"

3/4"

Manufacturer:Catalog Number:

Standco

Order by size and description

Lewis	6108	6110	6112	6114	6116	6118	6120
Electrical Mfg. Co.	M508	M510	M512	M514	M516	M518	M520
Seyler	8808	8810	8812	8814	8816	8818	8820
Kortick	1208	1210	1212	1214	1216	1218	1220
							1318
							1320

d - Washer

Manufacturer:

Catalog Number:

Hubbard	2 $\frac{1}{4}$ " x 2 $\frac{1}{4}$ " x 3/16", 13/16" hole	7814	4" x 4" x $\frac{1}{3}$ ", 13/16" hole	7819 $\frac{1}{3}$
Joslyn		1076		1473
Line Material		9451		9457 Sp.
Locke		6814		6819 $\frac{1}{3}$
Oliver		6943		6938
Utilities Service		5485		5490A
O'Leary	Order by size and description	M7813		
Mastergrip				
Inter. Derrick & Equipment Co.		14217		
Standco	Order by size and description			
Lewis		6943		
Electrical Mfg. Co.		853		859
Seyler	Same numbers as Locke			
Kortick		1553		1559 $\frac{1}{3}$

f - Fin, crossarm, steel

Thread (inches diam.)	1	1	1-3/8	1-3/8	1-3/8	1-3/8
Length, above base (inches)	4-3/4	4-3/4	6	7	8	9
Shank (inches diam.)	5/8	3/4	3/4	3/4	3/4	3/4
<u>Manufacturer:</u>						
Hubbard						
Long Shank	981	990A	5312	5324	5326	5330
Short Shank	986	993A	5311	5323	5325	5329
Joslyn						
Long Shank	203A	-	-	607 $\frac{1}{2}$	607A	608
Short Shank	221A	-	-	629 $\frac{1}{2}$	630	631
Line Material						
Long Shank	223848	-	-	235459	31437	31447
Short Shank	-	-	-	235419	31432	31457
Locke						
Long Shank	881	890A	4312	4324	4326	4328
Short Shank	886	893A	4311	4323	4325	4327
Oliver						
Long Shank	3506	-	3466	3417	3418	3419
Short Shank	3555	-	3456	3166	3467	3468
Util. Service						
Long Shank	558	562	3128	3150	3137	3139
Short Shank	579	581	3131	3147	3148	3144
<u>Catalog Number:</u>						

(f)

Thread (inches diam.)	1	1	1	1	1	1
Length, above base (inches)	4	3 1/4	4	3 1/8	1 3/8	1 3/8
Shank (inches diam.)	5/8	3/4	3/4	3/4	3/4	3/4

Manufacturer:Catalog Number:

Electrical Mfg. Co.						
Long Shank	911	---	917	940	941	946
Short Shank	920	---	922	929	946	947
Seyler						
Long Shank	831	890A	4312	4324	4326	4328
Short Shank	886	893A	4311	4323	4325	4327
Kortick						
Long Shank	7103	---	---	---	---	---
Short Shank	7122	---	---	---	---	---

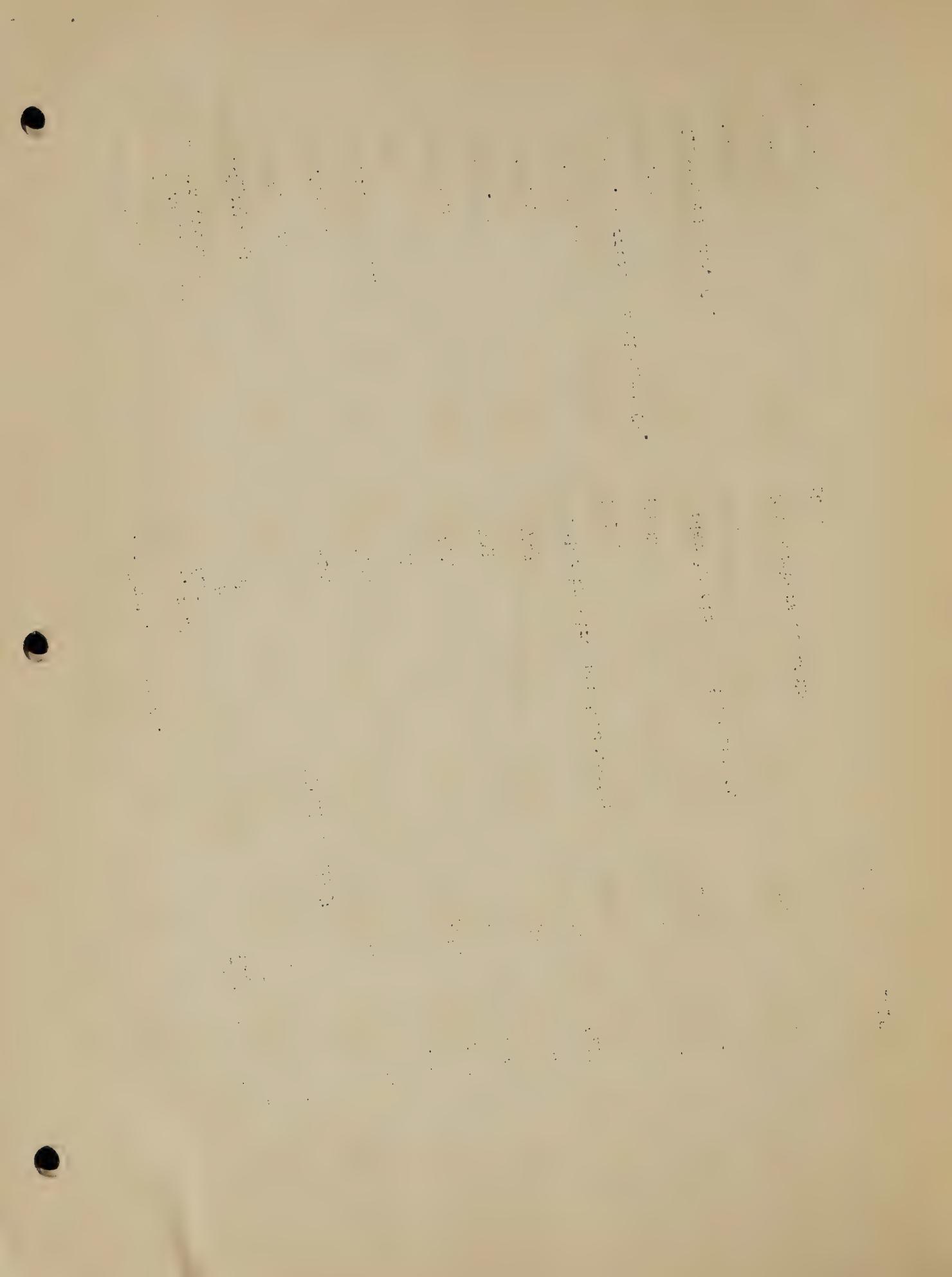
h - Brace, crossarm, diagonal

Size (inches)	$1\frac{1}{4}$ x $\frac{1}{4}$ *
Style	Flat
Centers (inches)	26
Length (inches)	42
	28

Manufacturer:

Hubbard	8128	7940	7942
Joslyn	7128	1506	1508
Line Material	9219	9251	9256
Locke	7128	6940	6953
Oliver	5228	5240	5244
Util. Service	5243	5214	5217
O'Leary			
Mastergrip	M8128	M7940	-
Inter. Derrick & Equipment Co.	14024	14030	-
Standco			
Electrical Mfg. Co.	828	756	759
Seyler	Same numbers as Locke		
Kortick	1428	1812	1815
* REA Standard			

Catalog Number:



1 - Bolt, carriage

Length (inches)

3

3½

4

4½

5

5½

6

Manufacturer:

Hubbard

3/8"

1/2"

9633

9643

9633½

9643½

9634

9644

9634½

9644½

9635

9645

9635½

9645½

9636

9646

9636½

9646½

Joslyn

3/8"

1/2"

8633

8633½

8634

8644

8634½

8644½

8635

8645

8635½

8645½

8636

8646

Line Material

3/8"

1/2"

9350

9357

9351

9358

9352

9360

9353

9361

9354

9362

9355

9363

9356

9364

Oliver

3/8"

1/2"

5303

5403

5303½

5403½

5304

5404

5304½

5404½

5305

5405

5305½

5405½

5306

5406

5306½

5406½

Electrical Mfg. Co.

3/8"

1/2"

C303

-

C303½

-

C304

C404

C304½

C404½

C305

C405

C305½

C405½

C306

C406

C306½

C406½

Util. Service

3/8"

1/2"

5055

5062

5056

5063

5057

5064

5058

5065

5059

5066

5060

5067

5061

5068

Mastergrip

3/8"

1/2"

M9633

M9643

M9633½

M9643½

M9634

M9644

M9634½

M9644½

M9635

M9645

M9635½

M9645½

Catalog Number:

(1)

Length (inches)

3

3½

4

4½

5

5½

6

Catalog Number:Manufacturer:
Inter. Derrick
& Equipment Co.

14597-A

14597-B

14597-C

14597-D

14597-E

14597-F

14597-G

14597-H

14597-I

14597-J

14597-K

14597-L

14597-M

14597-N

14597-O

14597-P

14597-Q

14597-R

14597-S

14597-T

14597-U

14597-V

14597-W

14597-X

14597-Y

14597-Z

14597-aa

14597-bb

14597-cc

14597-dd

Kortick
3/8" 1043 1043½ 1044 1044½ 1045 1046
1/2" 1133 1133½ 1134 1134½ 1135 1136

Order by size and description

Standcq

Seyler
Same numbers as Joslyn

Locke

Same numbers as Joslyn

Lewis
3/8" 5303 5303½ 5304 5304½ 5305 5306
1/2" 5403 5403½ 5404 5404½ 5405 5406

j - Screw, lag

Length (inches)	2 $\frac{1}{2}$	3	3 $\frac{1}{2}$	4	4 $\frac{1}{2}$	5	6
<u>Manufacturer:</u>							
Hubbard							
3/8"	9742 $\frac{1}{2}$	9743	9743 $\frac{1}{2}$	9744	9744 $\frac{1}{2}$	9745	9746
1/2"	9752 $\frac{1}{2}$	9753	9753 $\frac{1}{2}$	9754	9754 $\frac{1}{2}$	9755	9756
5/8"	-	-	-	9764	9764 $\frac{1}{2}$	9765	9766
Joslyn							
3/8"	8742 $\frac{1}{2}$	8743	8743 $\frac{1}{2}$	8744	8744 $\frac{1}{2}$	8745	8746
1/2"	8752 $\frac{1}{2}$	8753	8753 $\frac{1}{2}$	8754	8754 $\frac{1}{2}$	8755	8756
5/8"	-	-	-	8764	8764 $\frac{1}{2}$	8765	8766
Line Material							
3/8"	9535	9536	9537	9539	9539	9540	9546
1/2"	9541	9542	9544	9546	9546	9547	9551
5/8"	-	-	9549	9549 $\frac{1}{2}$	9550	9550	
Locke							
	Same as Joslyn						
Oliver							
3/8"	5602 $\frac{1}{2}$	5603	5603 $\frac{1}{2}$	5604	5604 $\frac{1}{2}$	5605	5606
1/2"	5702 $\frac{1}{2}$	5703	5703 $\frac{1}{2}$	5704	5704 $\frac{1}{2}$	5705	5706
5/8"	-	-	-	5804	5804 $\frac{1}{2}$	5805	5806
Util. Service							
3/8"	5361	5362	5363	5364	5365	5366	5367
1/2"	5368	5368	5369	5370	5371	5372	5374
5/8"	-	-	-	5377	5378	5379	5381
Kortick							
3/8"	1032 $\frac{1}{2}$	1033	1033 $\frac{1}{2}$	1034	1034 $\frac{1}{2}$	1035	1036
1/2"	1122	1123	1123 $\frac{1}{2}$	1124	1124 $\frac{1}{2}$	1125	1126
5/8"	-	-	-	1234	1234 $\frac{1}{2}$	1235	1236
	12244-j-1						

Length (inches)	2½	3	3½	4	4½	5	6
(J)							
Manufactur er :							
Mastergrip							
3/8"	M9742½	M9743½	M9744½	M9745	M9746	M9746	M9746
1/2"	M9752½	M9753½	M9754½	M9755	M9756	M9756	M9756
5/8"	-----	-----	M9764	M9765	M9766	M9766	M9766
Inter. Derrick & Equip. Co.							
3/8"	14421-B	14421-C	14421	14423-A	14423-B	14423-C	14423-D
1/2"	14423-E	14423	-----	14424	14425	14426	14426-B
5/8"	-----	-----	-----	14426-E	14426-F	14427	14427-B
Standco							
3/8"	-----	-----	Order by size and description	-----	-----	-----	-----
1/2"	-----	-----	"	-----	-----	-----	-----
5/8"	-----	-----	"	-----	-----	-----	-----
"	"	"	"	"	"	"	"
"	"	"	"	"	"	"	"
"	"	"	"	"	"	"	"
Lewis							
3/8"	5602½	5603	5603½	5604	5604½	5605	5606
1/2"	5702½	5703	5703½	5704	5704½	5705	5706
Electrical Mfg. Co.							
3/8"	L302½	L303	L303½	L304	L304½	L305	L306
1/2"	L402½	L403	L403½	L404	L404½	L405	L406
5/8"	-----	-----	-----	L504½	L505	L506	-----

Manufactur~~er~~:

Catalog Number:

Seyler

Same numbers as Joslyn

k - Insulator, suspension

ALL items listed shall have 5/8" cotter bolts
5 7.2/12.5 15 22 33

3

九

66

KV CLASS

Specification:

<u>Flashover</u>	45	50	65	80	80
" " <u>Dry</u>	45	50	65	80	80
<u>Leakage, Inches</u>	23	30	40	50	50
<u>Strength, Pounds</u>	4	5 $\frac{1}{4}$	7	11 $\frac{1}{4}$	11 $\frac{1}{4}$
<u>Dian. Inches</u>	4000	10000	15000	15000	15000
<u>Units per string</u>	6	6	10	10	10
<u>Spacing, Inches</u>	1	2	2	4	5
—	5	7 $\frac{1}{2}$	10	10	10
—	5-3/4	5-3/4	5-3/4	5	5-3/4

Manufacturer:

Ill. Elec. Pore.	- 454					
	1261	1270	1271	1271	1271	
	1259	---	---	---	---	

Catalog Number:

Jeffery-Dewitt	2543	2551-R	---	2654	2654	2654
	2680		---	---	---	---
Pinco	1510	2410	600	1070	1070	1070
		1510	---	---	---	---
Lapp	6205	6605	9507	8100	8100	8100
	16583	16583	5875	5800	5800	5800
Locke	18116	---	580	580	580	580
Ohio Brass	36567	32433	32435	32439	32439	32439
Porc. Prod.	66107	66107	6606	6614	6614	6614
Thomas	1277	1204	1199B	21238	21238	21238
	1277	---	---	---	---	---
Westinghouse	918371	918371	570262	570265	570265	570265
Victor	806	804	801	800	800	800
	806	---	---	---	---	---
Pyrex	65221	65221	65224	65224	65224	65224

1 - Cleat, deadend
All items listed shall have 5/8" cotter bolts

Stranded Copper-type Conductors:

Gauge	30% E. H. S.	3#6	#2-3 str.cu.	4A	6A	8A	8C	9 $\frac{1}{2}$ D	40% E. H. S.
Diam. (inches)	0.349	0.320	0.290	0.230	0.199	0.179	0.179	0.174	3#12 0.174

Manufacturer:

Catalog Number:

Ohio Brass	80500	80500	80500	80500	80500	80500	80500	80500	80500
Joslyn (Pinco)	L-4038 2177U*	L-4038 2177U*	L-4038 2177U*	L-4038 2177U*	L-4038 2177U*	L-4038 2177U*	L-4038 2177U*	L-4038 2177U*	L-4038 2177U*
Locke	20294	20294	20294	20294	20294	20294	20294	20294	20294
Thomas	2102 2202	2102 2202	2102 2202	2102 2202	2102 2202	2102 2202	2102 2202	2102 2202	2102 2202
Line Material (Victor)	- V2102	- V2102	V2090 V2102						
Westinghouse	968751	968751	968751	968751	968751	968751	968751	968751	968751
Porc. Prod.	7510	7510	2110	2110	2110	2110	2110	2110	2110
Jeffery-Dewitt	5301	5301	5301	5301	5301	5301	5301	5301	5301
Brewer-Titchener	2102	2102	2102	2102	2102	2102	2102	2102	2102
Lapp	2102 2100U	2102 2100U	2102 2100U	2102 2100U	2102 2100U	2102 2100U	2102 2100U	2102 2100U	2102 2100U
Seyler	Same numbers as Locke								
Ill. Elec. Porc.	2102	2102	2102	2102	2102	2102	2102	2102	2102

* War Standard Item, acceptable for the duration and ninety days thereafter.

(1)

All items listed shall have 5/8" cotter bolts

Aluminum conductor (ACSR):

Gauge Diam. plus tape (inches)	2/0-6/1 0.547	1/0-6/1 0.498	2-7/1 0.425	4-7/1 0.357	4-6/1 0.350	6-6/1 0.258
-----------------------------------	------------------	------------------	----------------	----------------	----------------	----------------

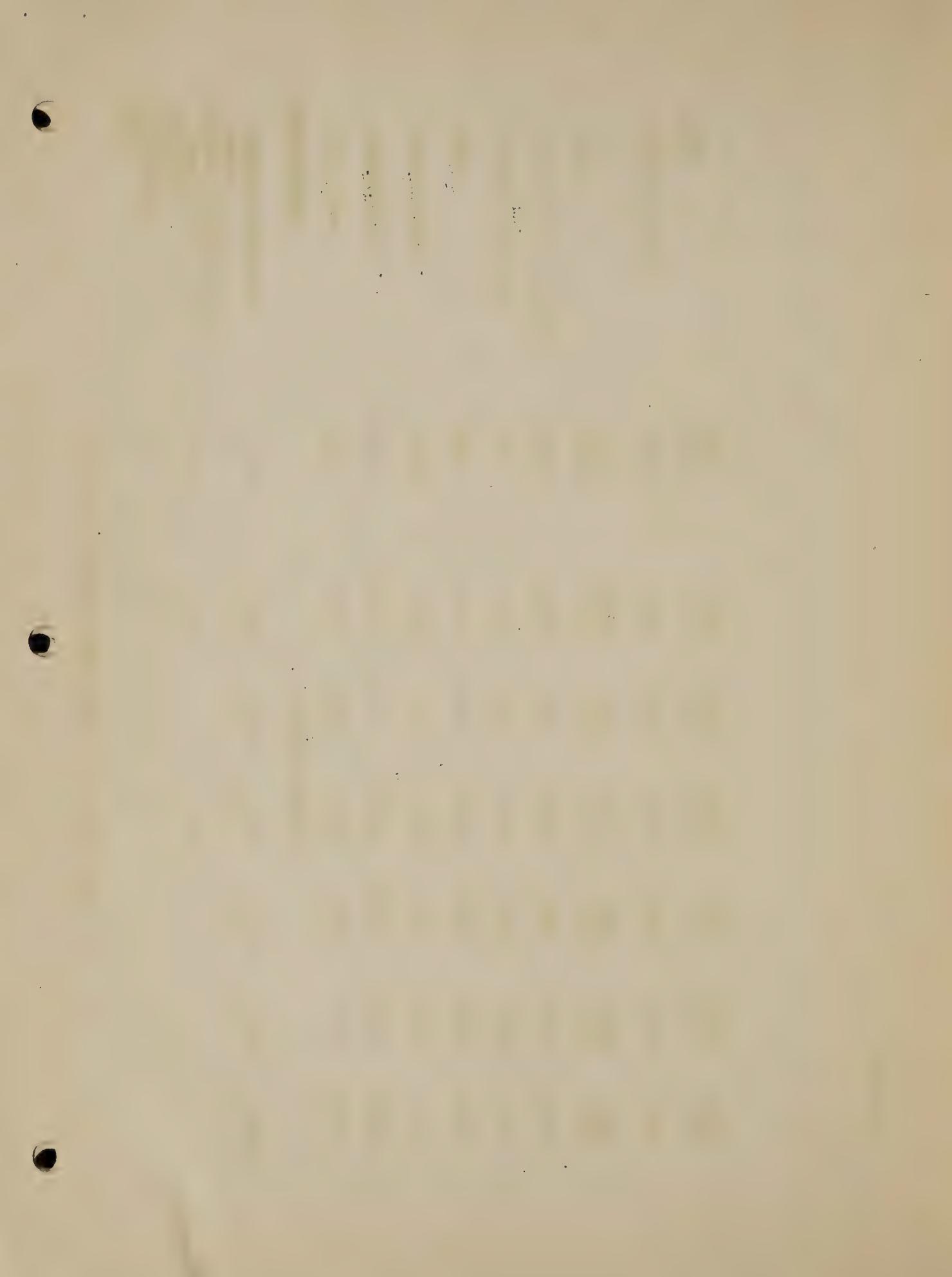
Manufacturer:

					<u>Catalog Number:</u>	
Alum. Co. of Amer.	403	403	-	-	-	-
Ohio Brass	78500	78500	81500	81500	81500	81500
Joslyn (Pinco)	L-1921	L-4050 L-4536*	L-4050 L-4536*	L-4050 L-4536*	L-4050 L-4536*	L-4050 L-4536*
Locke	20087	20293 20295*	20293 20295*	20293 20295*	20293 20295*	20293 20295*
Thomas	7511	7511	7511	7511	7511	7511
Victor (Line Material)	V-4060	V-4050	V-4050	V-4050	V-4050	V-4050
Westinghouse	BTC-7511	1028291 BTC-2104*	1028291 BTC-2104*	1028291 BTC-2104*	1028291 BTC-2104*	1028291 BTC-2104*
Porc. Prod.	7511	7511	7509	7509	7509	7509
Jeffery-Dewitt	5311	5026	5026	5026	5026	5026
Lapp	7511	7511	7511	7511	7511	7511
Seyler		Same numbers as Locke				

* War Standard Item, acceptable for duration and ninety days thereafter.

All items listed shall have 5/8" cotter bolts

<u>Crapo</u>	4	6	8
<u>Ruralductor</u>	4	6	8
<u>Amersteel</u>	4	6	8
<u>Diameter</u>	0.297	0.252	0.207
<u>Amerductor SCP and SCG</u>	4	6	8X
<u>Gauge</u>	0.310	0.248	0.216
<u>Diameter (inches)</u>		8	9X
		0.196	0.192
<u>Manufacturer:</u>		<u>Catalog Number:</u>	
Ohio Brass	80500	80500	80500
Westinghouse	968751	968751	968751
Joslyn (Pinco)	4038	4038	4038
Locke	20294	20294	20294
Porcelain Products	----	2110	2110
Line Material (Victor)	V2102	V2102	V2102
Thomas	2102 2202	2102 2202	2102 2202
Jeffery-Dewitt	5301	5301	5301
Lapp	2102 2100U	2102 2100U	2102 2100U



m - Clamps, suspension
All items listed shall have 5/8" cotter bolts
(For use on ACSR only, as
shown on drawing M41-10)

Aluminum conductor (ACSR):

<u>Manufacturer:</u>	<u>Gauge</u>	<u>Diam. - rods (inches)</u>	<u>2/0-6/1</u>	<u>1/0-6/1</u>	<u>2-7/1</u>	<u>2-6/1</u>	<u>4-7/1</u>	<u>4-6/1</u>	<u>6-6/1</u>
			0.835	0.744	0.595	0.586	0.555	0.548	0.434
Alum. Co. of America	---	---	---	---	---	---	---	---	---
Ohio Brass	---	---	82860	82860	82860	82860	82860	82860	82860
Finco (Joslyn)	---	---	4095 4020	4095 4020	4095 4020	4095 4020	4095 4020	4095 4020	4095 4020
Locke	---	---	20285	20285	20285	20285	20285	20285	20285
Thomas (Hubbard)	---	---	2300	2300	2300	2300	2300	2300	2300
Victor (Line Material)	---	---	V-2270-M	V-2270-M	V-2270-M	V-2270-M	V-2270-M	V-2270-M	V-2270-M
Westinghouse	---	---	968753	968753	968753	968753	968753	968753	968753
Lapp	---	20920	20920	20920	20920	20920	20920	20920	20920
Forc. Prod.	---	7521	7521	7521	7521	7521	7521	7521	7521
Jeffery-Dewitt	4661	4661	4661	4661	4661	4661	4661	4661	4661
Seyler	Same numbers as Locke	2300	2300	2300	2300	2300	2300	2300	2300
Ill. Elec. Forc.	2300	2300	2300	2300	2300	2300	2300	2300	2300

Clamps, suspension, 2-bolt (m)

Amerductor, Crapo and Ruralductor
#4 to #8

Amerductor
#4 to #12,
to
#8

Copper & CWC
#6 to #1/0

#2, #4 ACSR #1/0

Manufacturer:

83044
83064
14303
14307
46241
46243
6241
6243
BTG6240U
BTG6241U
BTG6243U

83084
14307
46241
6243
6243
6243
6243

Joslyn (Pinco)

14201
6240
6240
6241
6241
9301-V
6241
4201

Locke

46240

Thomas

6240
6240
6241
6241

Line Material (Victor)

6243
6243

Westinghouse

BTG6240U
BTG6241U
BTG6243U

Lapp

9300-V
9301-V

Porc. Products

6240
6241

Jeffery Dewitt

4201
4207

Util. Service

Same as Westinghouse

n - Bolt, double arming

Length (inches)	12	14	16	18	20
<u>Manufacturer:</u>	<u>Catalog Number:</u>				
Hubbard	9862	9864	9866	9868	9870
5/8"	9882	9884	9886	9888	9890
3/4"					
Joslyn	8862	8864	8866	8868	8870
5/8"	8882	8884	8886	8888	8890
3/4"					
Lewis	6412	6414	6416	6418	6420
5/8"					
Line Material	9380	9381	9382	9383	9384
5/8"	9390	9391	9392	9393	9394
3/4"					
Locke	Same numbers as Joslyn				
Seyler	Same numbers as Joslyn				
Oliver	6412	6414	6416	6418	6420
5/8"	6512	6514	6516	6518	6520
3/4"					
O'Leary	Order by size and description				

(n)

<u>Length (inches)</u>	12	14	16	18	20
<u>Manufacturer:</u>					
	<u>Catalog Number:</u>				
Util. Serv.					
5/8"	5076	5077	5078	5079	5080
3/4"	5083	5084	5085	5086	5087
Standco					
Kortick					
5/8"	1362	1364	1366	1368	1370
3/4"	1382	1384	1386	1388	1390
International Derrick & Equipment Company					
5/8"	14360	14361	14362	14363	14364
3/4"	14370	14371	14372	14373	14374
Mastergrip Util.					
5/8"	M9862	M9864	M9866	M9868	M9870
3/4"	M9882	M9884	M9886	M9888	M9890
Electrical Mfg. Co.					
5/8"	D512	D514	D516	D518	D520
3/4"	D612	D614	D616	D618	D620

o - Bolt, eye

Length (inches) 8 10 12 14 16 18 20

Manufacturer:

Catalog Number:

Hubbard

5/8" Mach.

Dbl. Arm.

39958

—

—

39960

—

39962

—

39964

—

39966

—

39968

—

39970

—

29786

—

29788

—

29790

—

39990

—

29800

Joslyn

5/8" Mach.

Dbl. Arm.

39978

—

39980

—

39982

—

39984

—

29796

—

29798

—

39986

—

29799

—

29800

—

Line Material

5/8" Mach.

Dbl. Arm.

9408

—

9410

—

9412

—

9414

—

9416

—

9418

—

9420

—

9422

—

9424

—

9426

—

9428

—

9430

—

9432

—

9433

—

9434

—

9435

—

9436

—

9437

—

9438

—

9439

—

9440

—

9441

—

9442

—

9443

—

9444

—

9445

—

9446

—

9447

—

9448

—

9449

—

9450

—

9451

—

9452

—

9453

—

9454

—

9455

—

9456

—

9457

—

9458

—

9459

—

9460

—

9461

—

9462

—

9463

—

9464

—

9465

—

9466

—

9467

—

9468

—

9469

—

9470

—

9471

—

9472

—

9473

—

9474

—

9475

—

9476

—

9477

—

9478

—

9479

—

9480

—

Locke

5/8" Mach.

Dbl. Arm.

29958

—

29960

—

29962

—

29964

—

19786

—

19788

—

19790

—

19798

—

19800

(o)

Length (inches)	8	10	12	14	16	18	20
-----------------	---	----	----	----	----	----	----

Manufacturer:

Oliver

5/8" Mach.	9608
Dbl. Arm.	9610
3/4" Mach.	9708
Dbl. Arm.	9710

5/8" Mach.	9612
Dbl. Arm.	9614
3/4" Mach.	9712
Dbl. Arm.	9714

5/8" Mach.	9616
Dbl. Arm.	9618
3/4" Mach.	9716
Dbl. Arm.	9718

5/8" Mach.	9620
Dbl. Arm.	9720
3/4" Mach.	9720
Dbl. Arm.	9720

5/8" Mach.	9620
Dbl. Arm.	9720
3/4" Mach.	9720
Dbl. Arm.	9720

5/8" Mach.	9620
Dbl. Arm.	9720
3/4" Mach.	9720
Dbl. Arm.	9720

5/8" Mach.	9620
Dbl. Arm.	9720
3/4" Mach.	9720
Dbl. Arm.	9720

5/8" Mach.	9620
Dbl. Arm.	9720
3/4" Mach.	9720
Dbl. Arm.	9720

5/8" Mach.	9620
Dbl. Arm.	9720
3/4" Mach.	9720
Dbl. Arm.	9720

5/8" Mach.	9620
Dbl. Arm.	9720
3/4" Mach.	9720
Dbl. Arm.	9720

5/8" Mach.	9620
Dbl. Arm.	9720
3/4" Mach.	9720
Dbl. Arm.	9720

5/8" Mach.	9620
Dbl. Arm.	9720
3/4" Mach.	9720
Dbl. Arm.	9720

Catalog Number:

Kortick

5/8" Mach.	2680
Dbl. Arm.	2681
3/4" Mach.	2703
Dbl. Arm.	2704

5/8" Mach.	2682
Dbl. Arm.	2683
3/4" Mach.	2705
Dbl. Arm.	2706

5/8" Mach.	2684
Dbl. Arm.	2685
3/4" Mach.	2707
Dbl. Arm.	2708

5/8" Mach.	2686
Dbl. Arm.	2687
3/4" Mach.	2709
Dbl. Arm.	2710

5/8" Mach.	2688
Dbl. Arm.	2689
3/4" Mach.	2711
Dbl. Arm.	2712

5/8" Mach.	2690
Dbl. Arm.	2691
3/4" Mach.	2713
Dbl. Arm.	2714

5/8" Mach.	2692
Dbl. Arm.	2693
3/4" Mach.	2715
Dbl. Arm.	2716

Util. Service

5/8" Mach.	5099
Dbl. Arm.	5100
3/4" Mach.	5109
Dbl. Arm.	5110

5/8" Mach.	5101
Dbl. Arm.	5102
3/4" Mach.	5110A
Dbl. Arm.	5111

5/8" Mach.	5103
Dbl. Arm.	5104
3/4" Mach.	5111
Dbl. Arm.	5112

5/8" Mach.	5105
Dbl. Arm.	5106
3/4" Mach.	5112
Dbl. Arm.	5113

5/8" Mach.	5107
Dbl. Arm.	5108
3/4" Mach.	5113
Dbl. Arm.	5114

5/8" Mach.	5108
Dbl. Arm.	5109
3/4" Mach.	5114
Dbl. Arm.	5115

5/8" Mach.	5109
Dbl. Arm.	5110
3/4" Mach.	5115
Dbl. Arm.	5116

(o)

Length (inches)	8	10	12	14	16	18	20
Standco							
International D & E	14291	14292	14293	14294	14295	14296	14297
5/8" Mach.	---	---	---	---	14314	14315	14316
Dbl. Arm.	14301	14302	14303	14304	14305	14306	14307
3/4" Mach.	---	---	---	---	14317	14318	14319
Dbl. Arm.							
Mastergrip Utilities							
5/8" Mach.	M-9958	M-9960	M-9962	M-9964	M-9966	M-9968	M-9970
Dbl. Arm.	---	---	---	---	M-9786	M-9788	M-9790
3/4" Mach.	M-9978	M-9980	M-9982	M-9984	M-9986	M-9988	M-9990
Dbl. Arm.	---	---	---	---	M-9796	M-9798	M-9800
Electrical Mfg. Co.							
5/8" Mach.	E-508	E-510	E-512	E-514	E-516	E-518	E-520
Dbl. Arm.	---	---	---	F-514	F-516	---	---
3/4" Mach.	E-608	E-610	E-612	E-614	E-616	E-618	---
Dbl. Arm.	---	---	---	F-614	F-616	E-618	---
Seyler							
5/8" Mach.	8958	8960	8962	8964	---	---	---
Dbl. Arm.	---	---	---	8786	8788	8790	8792
3/4" Mach.	8978	8980	8982	8984	---	---	8800
Dbl. Arm.	---	---	8796	8798	8798	8800	
Order by size and description							

<u>Copper and Copperweld Copper</u>		<u>00X7</u>	<u>0X7</u> <u>1X3</u>	<u>2X3</u> <u>1X7</u>	<u>4</u>	<u>6</u>	<u>4A</u>	<u>6A</u>	<u>8A</u>	<u>9$\frac{1}{2}$A</u>	<u>3#12</u>
<u>Matthews</u>											
or same conductor		00-NU	0-NU	2-NU	4-NU	6-NU	2-NU	4-NU	6-NU	6-NU	6-NU
or smaller											
Guy Strand $\frac{1}{4}$ " to 7/16"											
Service Connector											
<u>Reliable</u>											
To same conductor											
or smaller											
Guy Strand $\frac{1}{4}$ " to 7/16"		00-NU	0-NU	2-NU	4-NU	6-NU	2-NU	4-NU	6-NU	6-NU	6-NU
Service Connector											
<u>Burndy</u>											
To same conductor											
or smaller											
Guy Strand $\frac{1}{4}$ " to 7/16"		00-NU	0-NU	2-NU	4-NU	6-NU	2-NU	4-NU	6-NU	6-NU	6-NU
Service Connector											
<u>Anderson Brass</u>											
To same conductor											
or smaller											
Guy Strand $\frac{1}{4}$ " to 7/16"		KS26	KS25	KS23	KS20	KS17	KS23	KS20	KS17	KS17	KS17
Service Connector											
<u>Blackburn</u>											
To same conductor											
or smaller											
Guy Strand $\frac{1}{4}$ " to 7/16"		2/0H	1/0H	1H	4H	6H	2H	4H	6H	6H	6H
Service Connector											
<u>Line Material</u>											
To same conductor		CL10X13B	CL10X1B	CL10X1B	CL10X1B	CL10X1B	CL10X1B	CL10X1B	CL10X1B	CL10X1B	CL10X1B
or smaller		3132	3130	3130	3124	3122	3124	3126	3126	3126	3126
Guy Strand $\frac{1}{4}$ " to 7/16"		3417-1	3419-1								
Service Connector											

Copper and Copperweld Copper:

Fargo

To same conductor

00x7

0x7

42x30

44A

6A

8A

9 $\frac{1}{2}$ D

3#12

or smaller

5020-S

5020

5002-S

5004

5006

5002

5004

5006

5006

Guy Strand $\frac{1}{4}$ " to $7/16$ "

Service Connector

5004

5006

5006

5006

5006

5006

5006

5006

J. R. Kearney

To same conductor

or smaller

Guy Strand

$\frac{1}{4}$ " to $7/16$ "

Service Connector

6494

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

6493

649

(p)

(Copper and Copperweld Copper)

	LONG CONNECTORS - 3 Conductor of size indicated	
Line Material	<u>#2</u>	<u>#6</u>
Anderson	3406-L	3404-L
K. & H.	-	-
Penn Union	-	LC-900-36
Sherman	<u>S-EL-3H</u>	<u>S-EL-4H</u>
Reliable	-	TSS-4
	L206SC	TSS-6
		L165SC

(As recommended by Conductor manufacturer)

	2/0	1/0	2	4	2/0	Over armor rods 1/0	2	4	Over armor rods 1/0
<u>A. C. S. R.</u>									
<u>Reliable</u>									
To A. C. S. R.	Same size or smaller	--	10ALW	2ALW	4ALW	--	744AL	744AL	555AL
To Copper	#4 & #6	--	--	--	--	--	744ALC	744ALC	555ALC
To Copperweld	4A, 6A, 8A, 9 $\frac{1}{2}$ D & 3#12	--	--	--	--	--	744ALC	744ALC	744ALC
To Guy Strand	1/4", 3/8" & 7/16"	--	--	438AL	438AL				
<u>Burndy</u>									
To A. C. S. R.	Same size or smaller	--	KSA26	KSA23	KSA22	--	BPG64A26R	BPG11A26R	BPG11A26R
To Copper	#4 & #6	--	--	--	--	--	BPG64A2W	BPG11A4W	BPG11A4W
To Copperweld	8A, 9 $\frac{1}{2}$ D & 3#12	--	--	--	--	--	BPG64A2W	BPG11A4W	BPG11A4W
To Guy Strand	1/4" to 7/16"	--	--	BPG625S2R	BPG625S2R	--	--	--	--
<u>Anderson Brass</u>									
To A. C. S. R.	Same size or smaller	LC53	LC52	LC52	--	LC82	LC53	LC53	
To Copper	#4 & #6	--	--	--	--	LC811	LC811	LC811	
To Copperweld	4A, 6A, 8A, 9 $\frac{1}{2}$ D & 3 #12	--	--	--	--	LC822	LC811	LC811	
To Guy Strand	1/4" to 5/16"	--	--	LC53	--	--	--	--	

(p)

<u>A. C. S. R.</u>	2/0	1/0	2	4	<u>2/0</u>	<u>1/0</u>	<u>2</u>	<u>4</u>
<u>Blackburn</u>								
<u>Connection to same conductor</u>								
To Copper #4 & #6	---	---	1/0AW	2AW	4AW			
To Copperweld	---	---	---	---	---			
To Guy Strand 1/4" to 7/16"	---	---	1/0AW	1/0AW				
<u>Line Material</u>								
<u>Connection to same conductor</u>								
or smaller	---	---	3960	3962	3964	CL10x7	CL10x7	CL10x9
To Copper #4 & #6	---	---	CL10x11	CL10x3	CL10x3	CL10x1	CL10x8	CL10x8
To Copperweld 8A, 9 $\frac{1}{2}$ D & 3 #12	---	---	4A & 6A	---	---	CL10x8	CL10x8	CL10x8
To Guy Strand $\frac{1}{4}$ " & 3/8"	---	---	3962	3962	---	---	---	---
<u>J. R. Kearney</u>								
<u>Connection to same conductor</u>								
or smaller	---	---	6847-1	6846-1	6759-1	---	---	---
To Copper #4 & #6	---	---	---	---	---	---	---	---
To Copperweld 4A, 6A, 8A 9 $\frac{1}{2}$ D & 3 #12	---	---	---	---	---	---	---	---
To Guy Strand 1/4", 3/8"	---	---	---	---	---	---	---	---
or 7/16"	---	---	---	---	---	---	---	---

	2/0	1/0	2	4	2/0	1/0	2	4
<u>A. C. S. R.</u>								

Penn Union

To same conductor or smaller - AA-1/0 AA-2 AA-4 - - - -

To Copper & Copperweld - - - - - - - -

To Guy Strand $\frac{1}{4}$ " & $3/8$ " - AA-1/0 AA-1/0 - - -

Joslyn

To same conductor or smaller - - - - - - - -

J3619

J3617

J3616

J3196

J3198

J3044

3044

3055

To Copper #4 to #6 - - - -

J3629

J3627

J3626

3144

3144

3155

To Copperweld #4A to 3#12 - J3629

J3627

J3626

3144

3144

3144

To Guy Strand - - - -

J3031

J3031

- - - -

Aluminum Company of America

To same conductor or smaller

190

192

192

194

184

196

196

198

To Copper #4 & #6 - - - -

-

-

-

-

197

197

197

197

To Copperweld #8 to 3#12 - - - -

-

-

-

-

197

197

197

To Guy Strand $\frac{1}{4}$ " to 7/16" - - - -

-

-

-

196

198

-

-

(p)
(As recommended by conductor manufacturers)

	4	6	8	8X	9X	10	12
Amersteel, Ruralductor and Crapo:							
<u>Matthews</u>							
To Amersteel (Same)	2-A	X2-A	-	4-A	-	-	-
Ruralductor (Size)	2-A	X2-A	-	4-A	-	-	-
Crapo (or)	2-A	X2-A	-	4-A	-	-	-
Amerductor (Smaller)	2-A	X2-A	-	4-A	4-A	4-A	6-A
To A.C.S.R.	1/0 over armor rods	-	-	500-NU Plated	-	-	-
	2 over armor rods	-	-	350-NU Plated	-	-	-
To Copper	4 and 6	W-2-AC	W-X2-AC	W-X2-AC	W-X2-AC	W-X2-AC	W-X2-AC
To Guy Strand	1/4"	W-2-AC	W-X2-AC	W-4-AC	W-4-AC	W-4-AC	W-4-AC
	3/8"	2-A	X2-A	X2-A	X2-A	X2-A	X2-A
	7/16"	-	-	0-A	-	-	-
Reliable							
To Amersteel (Same)	2-G	4-G	-	6-G	-	-	-
Ruralductor (Size)	2-G	4-G	-	6-G	-	-	-
Crapo (or)	2-G	4-G	-	6-G	-	-	-
Amerductor (Smaller)	2-G	4-G	-	6-G	-	-	-
To A.C.S.R.	1/0 over armor rods	-	-	6-G	-	-	-
	2 over armor rods	-	-	6-G	-	-	-
	4 over armor rods	-	-	6-G	-	-	-
To Copper	4 and 6	2GC	4GC	555AL	666AL	666AL	666AL
To Guy Strand	1/4" to 7/16"	-	-	438AL	-	-	-
Burndy							
To Amersteel (Same)	KSL23	KSL22	-	KSL22	-	-	-
Ruralductor (Size)	KSL23	KSL22	-	KSL22	-	-	-
Crapo (or)	KSL23	KSL22	-	KSL22	-	-	-
Amerductor (Smaller)	KSL23	KSL22	KSL20	KSL22	KSL22	-	-
To A.C.S.R.	1/0 over armor rods	-	-	BPG64A25A	-	-	-
	2 & 4 over armor rods	-	-	BPG11A25A	-	-	-
To Copper	4 and 6	-	-	KSLKL20	KSLKL22	KSLKL22	KSLKL22
To Guy Strand	1/2" to 7/16"	KSLKL23	KSLKL22	BPG625S2R	-	-	-

(p)
(as recommended by conductor manufacturers)

Amersteel, Ruralductor and Crapo;
Amerductor:

		4	6	8	8X	9X	10	12
<u>Anderson Brass</u>								
To Amersteel	(Same)	LC-53	LC-51	-	-	-	-	-
	()	ST-20	STP-2	-	-	-	-	-
Ruralductor	(Size)	LC-53	LC-51	-	-	-	-	-
	()	ST-20	STP-2	-	-	-	-	-
Crapo	(or)	LC-53	LC-51	-	-	-	-	-
	()	ST-20	STP-2	-	-	-	-	-
Amerductor	(Smaller)	LC-53	LC-51	-	-	-	-	-
		ST-20	STP-2	-	-	-	-	-
To A.C.S.R.	1/0 over armor rods	-	-	-	-	-	-	-
	2 & 4 over armor rods	-	-	-	-	-	-	-
To Copper	4 & 6	-	-	-	-	-	-	-
To Guy Strand	1/4" to 7/16"	ST-30	STP-2-C	-	-	-	-	-
		ST-20	ST-20	STP-1-C	STP-1-C	STP-1-C	STP-1-C	ST-20
<u>Blackburn</u>								
To Amersteel	(Same)	1HP	2HP	-	-	-	-	-
	(Size)	1HP	2HP	-	-	-	-	-
Crapo	(or)	1HP	2HP	-	-	-	-	-
Amerductor	(Smaller)	1HP	2HP	4HP	4HP	4HP	4HP	4HP
To A.C.S.R.		-	-	-	-	-	-	-
To Copper	4 & 6	1HPW	2HPW	4HPW	4HPW	4HPW	4HPW	4HPW
To Guy Strand	1/4"	1HP	2HP	4HPW	4HPW	4HPW	4HPW	4HPW
	3/8"	1/0HP	-	2HP	2HP	2HP	2HP	2HP
	7/16"	2/0HP	-	-	-	-	-	-
<u>Line Material</u>								
To Amersteel	(Same)	3406P	3405P	-	-	-	-	-
	(Size)	3406P	3405P	-	-	-	-	-
Crapo	(or)	3406P	3405P	3404P	3404P	3404P	3404P	3404P
Amerductor	(Smaller)	3406P	3405P	3404P	3404P	3404P	3404P	3404P
To A.C.S.R.		-	-	-	-	-	-	-
To Copper	4	3406PW	3405PW	3404PW	3404PW	3404PW	3404PW	3404PW
	6	3406PW	3405PW	3404PW	3404PW	3404PW	3404PW	3404PW
To Guy Strand	1/4"	-	-	-	-	-	-	-
	3/8"	-	-	-	-	-	-	-
	7/16"	-	-	-	-	-	-	-

(As recommended by conductor manufacturers)

		4	6	8	8X	9X	10	12
<u>Amersteel</u>	<u>Ruralductor and Crapo</u>							
<u>Amerductor</u>								
<u>Kearney</u>								
To Amersteel	(Same)	6853-1	6852-1	-	-	-	-	-
Ruralductor	(Size)	6853-1	6852-1	-	-	-	-	-
Crapo	(or)	6853-1	6852-1	-	-	-	-	-
Amerductor	(Smaller)	6853-1	6852-1	-	-	-	-	-
To A.C.S.R.								
To Copper	4	6839-1	6733-1	-	-	-	-	-
	6	6839-1	6733-1	-	-	-	-	-
To Guy Strand	1/4"	6853-1	6852-1	6852-1	6852-1	6852-1	6852-1	6852-1
	3/8"	6854-1	6854-1	6854-1	6854-1	6854-1	6854-1	6854-1
	7/16"	6855-1	6855-1	6855-1	6855-1	6855-1	6855-1	6855-1
<u>Sherman</u>								
To Amersteel	(Same)	PTS-2ST	PTS-2	-	PTS-4	-	-	-
Ruralductor	(Size)	R-22	R-22	-	R-22	-	-	-
Crapo	(or)	PTS-2ST	PTS-2	-	PTS-4	-	-	-
Amerductor	(Smaller)	PTS-2ST	PTS-2	-	PTS-4	-	-	-
To A.C.S.R.		R-22	R-22	-	R-22	-	-	-
To Copper	4 & 6	R-12						
To Guy Strand	1/4"	PTS-2ST	PTS-2	PTS-2	PTS-2	PTS-2	PTS-2	PTS-2
	3/8"	R-22						
	7/16"	PTS-1/0						
<u>Joslyn</u>								
To Same Conductor or Smaller		J3656	J3655	-	J3654	J3654	J3654	J3654
To A.C.S.R.	1/0 over armor rods	J3044	J3044	-	J3044	-	-	-
	2 & 4 over armor rods	J3044	J3044	-	J3044	-	-	-
To Copper	4 & 6	J3655	J3652	-	J3651	-	-	-
To Guy Strand 1/4" to 7/16"		J3031	J3031	-	-	-	-	-

q - Bolt, double upset, insulated

<u>Manufacturer:</u>	<u>Insulator 1-3/4" Groove*</u>	<u>Insulator 3" Groove</u>	<u>5/8" Bolt 8"</u>	<u>5/8" Bolt 9"</u>	<u>5/8" Bolt 10"</u>
			<u>Catalog Number:</u>		
Hubbard	455	1716	8826	8828	8830
Line Material (Victor)	684	693	GP211	GP213	GP215
Locke	355 24205	0716 -	7826 -	7828 -	7830 -
Oliver	2100	2104	7524	7525	7526
Joslyn (Pinco)	151	0101	2394	2395	2396
Util. Service	205	199	31067	31069	31071
Lewis	-	-	7524	7525	7526
Electrical Mfg. Co.	210	218	U508D	U509D	U510D
Seyler	Same numbers as Locke				

* REA Standard

r - Clevis, secondary, deadend insulated

<u>Manufacturer:</u>	<u>Insulator</u> 1-3/4" Groove	<u>Clevis</u> Single	<u>Clevis</u> Double	<u>Insulator</u> 3" Groove	<u>Clevis</u> Single
		<u>Catalog Number:</u>			
Hubbard	455	568	1375	1716	569
	1340				
	1342				
Joslyn	151	193	0375	0101	463
	0342				
Line Material	684	GP251-S	GP5051	693	GP251-S
		1759			143008
		1857			KGE42C*
		KGE42B*			
Locke	355	468W**	0375	33013	468
	24205	0342		0716	469
Oliver	2100	4834	4465	2104	4833
		4405			4834
Porc. Prod.	5101	1443	11224	5119	1443
		1444			
		1453			

* War Standard Item, acceptable for the duration and ninety days thereafter.

** Includes 1-3/4" Groove, wet process insulator.

(二)

Manufacturer:

Insulator
1 3/4" Groove

Clevis
Single

levis
ouble
3" Groove

Clevis
Single

Util. Serv.

504

6000

Mastergrip

Thomas

Electrical
Mfg. Co.

210

5897-W

355
24205

12244-r-2

s - Clevis, secondary, swinging, insulated

<u>Manufacturer:</u>	<u>Insulator</u> $1\frac{3}{4}$ " Groove*	<u>Clevis</u> Single	<u>Insulator</u> $\frac{3}{4}$ " Groove	<u>Clevis</u> Single
				<u>Catalog Number:</u>
Hubbard	455	2968 1352 1369	1716	1367
Joslyn	151	0322	0101	0327
Line Material	684	102939 102940 110323	693	SPA-629
Locke	355 24205	0352W* 0366 1968	0716 33013	0353* -
Oliver	2100	4436 4438 4445	2104	-
Porc. Prod.	5101	1991	5119	-
Util. Service	205	31043 31045 31122	-	-
Electrical Mfg. Co.	210	646	218	676
Seyler		Same numbers as Locke		

* Number includes wet process insulator.

u - Clamp, guy - 3-bolt, 6"

Strand Size*:

1/4"

3/8"

7/16"

Manufacturer:

Catalog Number:

Hubbard	7450	7450, 7461	7450, 7461
Joslyn	934	930, 931	931
Line Material	9492	9492, 9493	9493
Locke	6450	6450, 6461	6450, 6461
Oliver	9102	9002, 9004	9004
Util. Service	5273	5273, 5275	5273, 5275
Mastergrip	M7450	M7450, M7461	M7461
Inter. Derrick & Equipment Co.	14605	14605, 14603	14603
Electrical Mfg. Co.	802	802, 804	802, 804
Seyler	6450	6450, 6461	6450, 6461
Kortick	-	4124, 4005	4124, 4005
Kemper (roller clamp)	-	7-11	-

* As given by manufacturers.

v - Guy Attachment

Type: Formed strap
Strength: * 5,200 lb. maximum
Bolt Size: 5/8"

Manufacturer:

<u>Manufacturer:</u>	<u>Catalog Number:</u>
Hubbard	6004 6007
Joslyn	6502
Line Material	R148
Chance	-
Locke	5004
Oliver	9083
Util. Service	31030
Electrical Mfg. Co.	796 798
Seyler	Same numbers as Locke

Angle Thimbleye bolt eye
* 5,200 lb. maximum
5/8"

* Note: A wrapped guy shall be used where guy tension exceeds 5,200 pounds.

w - Insulator, guy

Strength (lbs.)	10,000	10,000	10,000	10,000	20,000	20,000	10,000	20,000	25,000	30,000
Diam. hole (ins.)	3/8	1/2	5/8	3/4	3/4	7/8	1	1	1	1
<u>Manufacturer:</u>										
Ill. Elec. Prod.	---	---	534	536	---	---	538	540	---	---
Jeffery-Dewitt	---	---	2585	2586	---	---	2587	---	---	---
Pinco (Josl.)	---	---	1287	---	---	284	289	---	---	---
Iapp	---	---	5450	5451	---	---	5452	5452	---	---
Locke	---	---	7664	---	---	7665	---	---	7666	---
Ohio Brass	---	31350	---	31351	---	---	31352	---	---	---
Forc. Prod.	702	---	704	---	---	706	---	---	708	---
Thomas (Hubb.)	---	---	510	511	---	512	---	514	---	---
Westh's	---	530*	530	532	532	534*	534	534	536	536
Victor (L. M.)	---	552	554	---	---	556	---	---	---	---

* Has size larger hole but can be used for hole size shown.

x - Rod, anchor

Diam., inches	5/8	5/8	3/4	3/4	3/4	1	1	1
Length, feet	7	8	8	9	10	8	9	10

Manufacturer:

Catalog Number:

Hubbard								
Thimbleye	6317	6318	6328	6329	6331	6338	6339	6340
Twineye	6347	6348	6358	6359	6360	6368	6369	6370
Joslyn								
Thimbleye	7417	7418	7428	7429	7430	7438	7439	7440
Twineye	7517	7518	7528	7529	7530	7538	7539	7540
Line Material								
Thimbleye								
Twineye								
Locke								
Thimbleye	5317	5318	5328	5329	5330	5338	5339	5340
Twineye	5347	5348	5358	5359	5360	5368	5369	5370
Thimbleye-Drive	3317	3318	3328	3329	3330	3338	3339	3340
Twineye-Drive	-	-	3358	3359	-	3368	-	3370
Kearney								
Thimbleye	8607	8608	8708	8709	8710	8808	8809	8810
Twineye	-	-	8908	8909	8910	9008	9009	9010
Oliver								
Thimbleye	8607	8608	8708	8709	8710	8808	8809	8810
Twineye	-	-	8908	8909	8910	9008	9009	9010
Chance								
Thimbleye-Threaded	057	058	038	039	0310	018	019	010
Twineye-Threaded	-	-	0380	0390	-	0180	-	0100
Thimbleye-Drive	57	58	38	39	310	18	-	110
Twineye-Drive	-	-	380	390	-	180	-	1100

(x)

Diam. inches	5/8	5/8	3/4	3/4	1	1	1
Length, feet	7	8	9	10	8	9	10

Manufacturer:

Util. Serv.

Thimbleye

Twineye

Electrical Mfg.

Single eye

Double eye

Kortick

Thimbleye

Twineye

Seyler

Mastergrip

5025

5026

5029

5030

5031

5033

5034

5037

5038

5038A

5040

5040A

5041

5041A

5041B

5041C

5041D

5041E

5041F

5041G

5041H

5041I

5041J

5041K

5041L

5041M

5041N

5041O

5041P

5041Q

5041R

5041S

5041T

5041U

5041V

5041W

5041X

5041Y

5041Z

5041AA

5041AB

5041AC

5041AD

5041AE

5041AF

5041AG

5041AH

5041AI

5041AJ

5041AK

5041AL

5041AM

5041AN

5041AO

5041AP

5041AQ

5041AR

5041AS

5041AT

5041AU

5041AV

5041AW

5041AX

5041AY

5041AZ

5041BA

5041BB

5041BC

5041BD

5041BE

5041BF

5041BG

5041BH

5041BI

5041BJ

5041BK

5041BL

5041BM

5041BN

5041BO

5041BP

5041BQ

5041BS

5041BT

5041BU

5041BV

5041BW

5041BX

5041BY

5041BZ

5041CA

5041CB

5041CC

5041CD

5041CE

5041CF

5041CG

5041CH

5041CI

5041CJ

5041CK

5041CL

5041CM

5041CN

5041CO

5041CP

5041CQ

5041CS

5041CT

5041CU

5041CV

5041CW

5041CX

5041CY

5041CZ

5041DA

5041DB

5041DC

5041DD

5041DE

5041DF

5041DG

5041DH

5041DI

5041DJ

5041DK

5041DL

5041DM

5041DN

5041DO

5041DP

5041DQ

5041DS

5041DT

5041DU

5041DV

5041DW

5041DX

5041DY

5041DZ

5041EA

5041EB

5041EC

5041ED

5041EE

5041EF

5041EG

5041EH

5041EI

5041EJ

5041EK

5041EL

5041EM

5041EN

5041EO

5041EP

5041EQ

5041ES

5041ET

5041EU

5041EV

5041EW

5041EX

5041EY

5041EZ

5041FA

5041FB

5041FC

5041FD

5041FE

5041FF

5041FG

5041FH

5041FI

5041FJ

5041FK

5041FL

5041FM

5041FN

5041FO

5041FP

5041FQ

5041FS

5041FT

5041FU

5041FV

5041FW

5041FX

5041FY

5041FZ

5041GA

5041GB

5041GC

5041GD

5041GE

5041FF

5041FG

5041FH

5041FI

5041FJ

5041FK

5041FL

5041FM

5041FN

5041FO

5041FP

5041FQ

5041FS

5041FT

5041FU

5041FV

5041FW

5041FX

5041FY

5041FZ

5041GA

5041GB

5041GC

5041GD

5041GE

5041FF

5041FG

5041FH

5041FI

5041FJ

5041FK

5041FL

5041FM

5041FN

5041FO

5041FP

5041FQ

5041FS

5041FT

5041FU

5041FV

5041FW

5041FX

5041FY

5041FZ

5041GA

5041GB

5041GC

5041GD

5041GE

5041FF

5041FG

5041FH

5041FI

5041FJ

5041FK

5041FL

5041FM

5041FN

5041FO

5041FP

5041FQ

5041FS

5041FT

5041FU

5041FV

5041FW

5041FX

5041FY

5041FZ

5041GA

5041GB

5041GC

5041GD

5041GE

5041FF

5041FG

5041FH

5041FI

5041FJ

5041FK

5041FL

5041FM

5041FN

5041FO

5041FP

5041FQ

5041FS

5041FT

5041FU

5041FV

5041FW

5041FX

5041FY

5041FZ

5041GA

5041GB

5041GC

5041GD

5041GE

5041FF

5041FG

5041FH

5041FI

5041FJ

5041FK

5041FL

5041FM

5041FN

5041FO

5041FP

5041FQ

5041FS

5041FT

5041FU

5041FV

5041FW

5041FX

5041FY

5041FZ

5041GA

5041GB

5041GC

5041GD

5041GE

5041FF

5041FG

5041FH

5041FI

5041FJ

5041FK

5041FL

5041FM

5041FN

5041FO

Z Anchors

Holding Power - lbs.	2500*	6000	8000	10000	12000
Min. Req'd Expanded Area - sq. in. (2, 3 or 4W & P)	-	90	100	120	135
Hole Diameter (max.), inches	6	8	8	8	8
Rod Diameter (min.), inches	-	5/8	5/8	3/4	3/4
Rod Length (min.), feet	-	7	7	8	-

Manufacturer:

Rock Guy Bolt Anchors

Catalog Number:

<u>Chance</u>					
(1) Expanding	(2W)	-	826	-	-
(2) Expanding	(3W)	-	-	-	-
(3) Expanding	(4W)	-	745	846	84
(4) Cone	(C)	-	8	10	12
(5) Screw	(S)	-	-	-	-
(6) Rock	(R)	1586-S	-	-	-
(7) Plate	(P)	-	R-315	R-330	R-353
<u>Wej-Lock</u>			1110	1125	1140
(2)	(3W)	-	834-W	836-W	8310-W
(3)	(4W)	-	-	-	8412-W

Everstick

(1)	(2W)	-	82	-	-
(2)	(3W)	-	834	836	8310
(3)	(4W)	-	-	-	-
(4)	(C)	-	80	10C	84-3/4
<u>Util. Service</u>	(R)	5003	-	-	-

Same as Chance except prefix "C"
Same as Wej-Lock except prefix "C"

<u>Kearney</u>					
(1)	(2W)	-	82090	7104	8120
(2)	(3W)	-	8090	8110	8125
(3)	(4W)	-	84090	84110	84125
(5)	(S)	65-1	-	-	84140
<u>Specialty Devices</u>					
(4)	(C)	-	8	10	12
(7)	(P)	-	15	-	-
<u>Lewis</u>	(1)	-	816	818	-

* To be used in guying services only.

	(z)	2500*	6000	8000	10000	12000
--	-----	-------	------	------	-------	-------

Manufacturer:

Catalog Number:

Rock Guy Bolt Anchors

Joslyn						
(Chance 3)	(4W)	J3427	J3428	J2855		
(" 4)	(C)	J2881	J2882	J2883		
(" 5)	(S)					
(" 6)	(R)					
(" 7)	(P)					
(Wej-Lock 2)	(3W)	J2876	J2877	J2878		
(" 3)	(4W)					
(Everstick 1)	(2W)					
(" 2)	(3W)	J1592	J1677	J1678		
(" 3)	(4W)					
(" 4)	(C)					
(" 5)	(R)					
Ill. Mail. (Superior)						
(1)	(2W)	82				
(2)	(3W)	834	836	8310		
(3)	(4W)					
(4)	(C)	C-8	C-10	C-12		
(5)	(S)					
Porc. Prod.						
Hubbard						
(1)	(2W)					
(5)	(S)					
(6)	(R)					
		7547				
Line Material						
(1), (2) and (3)						
(5)	(S)					
(6)	(R)					
(7)	(P)					
Wagner						
Mastergrip						
(1)	(2W)	A200103-1	A200104-1			
(2)	(3W)					
Seyler						
(5)	(S)	6290	72100	82120	82136	
(6)	(R)		834	836		
(7)	(P)					
McHugh						
(5)	(S)					
(6)	(R)					
(7)	(P)					
* To be used in guying service only.						

aa - Nut, eye, 5/8"	ab - Nut, thimble eye 5/8"	ac - Brace sidearm diagonal 1 $\frac{1}{2}$ " angle 3/16" x 5'	ad - Pin transf. #22 Scr. Wood
<u>Manufacturer:</u>	<u>Catalog Number:</u>		
Hubbard	7502	7517	7510
Joslyn	1092	1126	6510
Line Material	1739	1741	4340010-1 4340010-2
Chance	-	-	580
Locke	6502	6517	6510
Oliver	9460	9480	9440
Util. Service	450	497	0580
Mastergrip	-	M7514	-
Inter. Derrick & Equipment Co.	-	14630	14061
Electrical Mfg. Co.	790	792	-
Seyler	Same numbers as Locke	-	750
Kortick	4212	4411	3111
		3112	1951

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120	121	122	123	124	125	126	127	128	129	130	131	132	133	134	135	136	137	138	139	140	141	142	143	144	145	146	147	148	149	150	151	152	153	154	155	156	157	158	159	160	161	162	163	164	165	166	167	168	169	170	171	172	173	174	175	176	177	178	179	180	181	182	183	184	185	186	187	188	189	190	191	192	193	194	195	196	197	198	199	200	201	202	203	204	205	206	207	208	209	210	211	212	213	214	215	216	217	218	219	220	221	222	223	224	225	226	227	228	229	230	231	232	233	234	235	236	237	238	239	240	241	242	243	244	245	246	247	248	249	250	251	252	253	254	255	256	257	258	259	260	261	262	263	264	265	266	267	268	269	270	271	272	273	274	275	276	277	278	279	280	281	282	283	284	285	286	287	288	289	290	291	292	293	294	295	296	297	298	299	300	301	302	303	304	305	306	307	308	309	310	311	312	313	314	315	316	317	318	319	320	321	322	323	324	325	326	327	328	329	330	331	332	333	334	335	336	337	338	339	340	341	342	343	344	345	346	347	348	349	350	351	352	353	354	355	356	357	358	359	360	361	362	363	364	365	366	367	368	369	370	371	372	373	374	375	376	377	378	379	380	381	382	383	384	385	386	387	388	389	390	391	392	393	394	395	396	397	398	399	400	401	402	403	404	405	406	407	408	409	410	411	412	413	414	415	416	417	418	419	420	421	422	423	424	425	426	427	428	429	430	431	432	433	434	435	436	437	438	439	440	441	442	443	444	445	446	447	448	449	450	451	452	453	454	455	456	457	458	459	460	461	462	463	464	465	466	467	468	469	470	471	472	473	474	475	476	477	478	479	480	481	482	483	484	485	486	487	488	489	490	491	492	493	494	495	496	497	498	499	500	501	502	503	504	505	506	507	508	509	510	511	512	513	514	515	516	517	518	519	520	521	522	523	524	525	526	527	528	529	530	531	532	533	534	535	536	537	538	539	540	541	542	543	544	545	546	547	548	549	550	551	552	553	554	555	556	557	558	559	560	561	562	563	564	565	566	567	568	569	570	571	572	573	574	575	576	577	578	579	580	581	582	583	584	585	586	587	588	589	590	591	592	593	594	595	596	597	598	599	600	601	602	603	604	605	606	607	608	609	610	611	612	613	614	615	616	617	618	619	620	621	622	623	624	625	626	627	628	629	630	631	632	633	634	635	636	637	638	639	640	641	642	643	644	645	646	647	648	649	650	651	652	653	654	655	656	657	658	659	660	661	662	663	664	665	666	667	668	669	670	671	672	673	674	675	676	677	678	679	680	681	682	683	684	685	686	687	688	689	690	691	692	693	694	695	696	697	698	699	700	701	702	703	704	705	706	707	708	709	710	711	712	713	714	715	716	717	718	719	720	721	722	723	724	725	726	727	728	729	730	731	732	733	734	735	736	737	738	739	740	741	742	743	744	745	746	747	748	749	750	751	752	753	754	755	756	757	758	759	760	761	762	763	764	765	766	767	768	769	770	771	772	773	774	775	776	777	778	779	780	781	782	783	784	785	786	787	788	789	790	791	792	793	794	795	796	797	798	799	800	801	802	803	804	805	806	807	808	809	8010	8011	8012	8013	8014	8015	8016	8017	8018	8019	8020	8021	8022	8023	8024	8025	8026	8027	8028	8029	8030	8031	8032	8033	8034	8035	8036	8037	8038	8039	8040	8041	8042	8043	8044	8045	8046	8047	8048	8049	8050	8051	8052	8053	8054	8055	8056	8057	8058	8059	8060	8061	8062	8063	8064	8065	8066	8067	8068	8069	8070	8071	8072	8073	8074	8075	8076	8077	8078	8079	8080	8081	8082	8083	8084	8085	8086	8087	8088	8089	8090	8091	8092	8093	8094	8095	8096	8097	8098	8099	80100	80101	80102	80103	80104	80105	80106	80107	80108	80109	80110	80111	80112	80113	80114	80115	80116	80117	80118	80119	80120	80121	80122	80123	80124	80125	80126	80127	80128	80129	80130	80131	80132	80133	80134	80135	80136	80137	80138	80139	80140	80141	80142	80143	80144	80145	80146	80147	80148	80149	80150	80151	80152	80153	80154	80155	80156	80157	80158	80159	80160	80161	80162	80163	80164	80165	80166	80167	80168	80169	80170	80171	80172	80173	80174	80175	80176	80177	80178	80179	80180	80181	80182	80183	80184	80185	80186	80187	80188	80189	80190	80191	80192	80193	80194	80195	80196	80197	80198	80199	80200	80201	80202	80203	80204	80205	80206	80207	80208	80209	80210	80211	80212	80213	80214	80215	80216	80217	80218	80219	80220	80221	80222	80223	80224	80225	80226	80227	80228	80229	80230	80231	80232	80233	80234	80235	80236	80237	80238	80239	80240	80241	80242	80243	80244	80245	80246	80247	80248	80249	80250	80251	80252	80253	80254	80255	80256	80257	80258	80259	80260	80261	80262	80263	80264	80265	80266	80267	80268	80269	80270	80271	80272	80273	80274	80275	80276	80277	80278	80279	80280	80281	80282	80283	80284	80285	80286	80287	80288	80289	80290	80291	80292	80293	80294	80295	80296	80297	80298	80299	80300	80301	80302	80303	80304	80305	80306	80307	80308	80309	80310	80311	80312	80313	80314	80315	80316	80317	80318	80319	80320	80321	80322	80323	80324	80325	80326	80327	80328	80329	80330	80331	80332	80333	80334	80335	80336	80337	80338	80339	80340	80341	80342	80343	80344	80345	80346	80347	80348	80349	80350	80351	80352	80353	80354	80355	80356	80357	80358	80359	80360	80361	80362	80363	80364	80365	80366	80367	80368	80369	80370	80371	80372	80373	80374	80375	80376	80377	80378	80379	80380	80381	80382	80383	80384	80385	80386	80387	80388	80389	80390	80391	80392	80393	80394	80395	80396	80397	80398	80399	80400	80401	80402	80403	80404	80405	80406	80407	80408	80409	80410	80411	80412	80413	80414	80415	80416	80417	80418	80419	80420	80421	80422	80423	80424	80425	80426	80427	80428	80429	80430	80431	80432	80433	80434	80435	80436	80437	80438	80439	80440	80441	80442	80443	80444	80445	80446	80447	80448	80449	80450	80451	80452	80453	80454	80455	80456	80457	80458	80459	80460	80461	80462	80463	80464	80465	80466	80467	80468	80469	80470	80471	80472	80473	80474	80475	80476	80477	80478	80479	80480	80481	80482	80483	80484	80485	80486	80487	80488	80489	80490	80491	80492	80493	80494	80495	80496	80497	80498	80499	80500	80501	80502	80503	80504	80505	80506	80507	80508	80509	80510	80511	80512	80513	80514	80515	80516	80517	80518	80519	80520	80521	80522	80523	80524	80525	80526	80527	80528	80529	80530	80531	80532	80533	80534	80535	80536	80537	80538	80539	80540	80541	80542	80543	80544	80545	80546	80547	80548	80549	80550	80551	80552	80553	80554	80555	80556	80557	80558	

ae - Lightning Arresters, distribution

<u>Manufacturer:</u>	<u>Type</u>	<u>Catalog No.</u>	<u>Mounting</u>	<u>Catalog No.</u>
Gen. Elec.	Pellet		Crossarm	*9LA10A 15
	Pellet		Crossarm	*9LA10A 25
	Pellet		Crossarm	*9LA10A 35
	Pellet		Crossarm	*9LA10A 185
	Pellet		Crossarm combination	*9LA10A 61
Elec. Service	Crystal Valve	50932-L	Crossarm	Type DH (59271)***
	Crystal Valve	50932-L	Crossarm combination	63600 (59261)***
	Crystal Valve	50932-L	Flat Surface	Type DA (51795)***
	Crystal Valve	50932-L	coupler to comb. bracket	Type DEA
Joslyn	Expulsion	9231-P	Only on arresters supplied	
	Expulsion	9237-1	to Line Material	67254 (500000)***
Westinghouse	Type T-De-ion	1123911	Crossarm	9201-C or 9207
	Type T-De-ion	1123911	Crossarm combination	9202-A
			Crossarm	
			Crossarm	
Line Material	Type E		Crossarm	1087204
Hubbard	Autogap	#2302		1087204 and U-bolt
				clamp #945174
				*B-305151-17
				2304
				2308
				2309

* Catalog number includes arrester and mounting bracket.

** Numbers in parentheses are shop Part Numbers for corresponding catalog numbers.

ae - Lightning Arresters--Substation

Kv. Class	2.3	7.2	7.2/12.5	15	23	34.5	46	69
Line Type	Delta	Delta	Wye	Delta	Wye	Delta	Delta	Delta

Manufacturer:Catalog Number:

Gen. Electric								
Line Type	9LA10A2	9LA10A5	9LA10A5	9LA2D60	9LA2D62	9LA2D64	9LA2D66	
Station Type	9LA1E17	9LA1E19	9LA1E20	9LA1E27	9LA1E29	9LA1E31	9LA1E33	9LA1E35
Westinghouse								
Line Type	1151585	1123911	1123911	1198787	1225401	1225403	1225405	1225407
Station Type	1151601	1151603	1151604	1151605	1151607	1151609	1151611	1151613
Joslyn								
Line Type	9211P	9231P	9231P	---	---	---	---	---
Elec. Serv.								
Line Type	50927-L	50932-L	50932-L	50934-L	---	---	---	---
Line Material								
Line Type	---	B-305151-24	B-305151-24	B-305151-26	---	---	---	---

af - Cutout, fuse, single-shot, enclosed - Distribution

Manufacturer:

Mounting:

Catalog Number:

50 Amps.

100 Amps.

<u>General Electric</u>	<u>Crossarm combination</u>	<u>9F6A254</u>
	<u>Crossarm</u>	<u>9F6A24</u>
	<u>Flat surface</u>	<u>9F6A204</u>
	<u>Bushing mounted</u>	<u>9F6B1</u>
<u>Kearney</u>	<u>Crossarm or combination</u>	<u>5770-10</u>
<u>Line Material</u>	<u>Crossarm or combination</u>	<u>C230004-6</u>
	<u>Bushing mounted</u>	<u>C230152-6</u>
	<u>Flat surface</u>	<u>FUA-1024</u>
<u>Westinghouse</u>	<u>Cutout without bracket</u>	<u>1196201</u>
	<u>Crossarm bracket</u>	<u>1196213</u>
	<u>Crossarm combination</u>	<u>1123956</u>
<u>Matthews</u>	<u>Crossarm or combination</u>	<u>23</u>
<u>Rwy. & Ind. Eng.</u>	<u>Crossarm or combination</u>	<u>21491</u>
<u>Schweitzer & Conrad</u>	<u>Crossarm or combination</u>	<u>60801</u>
<u>Porcelain Products</u>	<u>Crossarm or combination</u>	<u>3456</u>

af - Cutout, fuse, single-shot, open - Distribution

Manufacturer:

Mounting:

Catalog Number

<u>50 Amps.</u>	
General Electric	Cutout (tubeless) 9F1745
	Crossarm 9F3E2
	Bushing Mounted 9F3E20
Kearney	Crossarm 6484-1 (trip-o-link)
	Crossarm 6486
Line Material	Crossarm C230150-6
	Flat Surface B230063-18
Bushing Mounted	Crossarm C230105-1
Cutout	Cutout C230106-2 (open-link)
Westinghouse	Cutout without bracket 1124278
	Crossarm-bracket 1124274
	Crossarm combination 1124275
Matthews	Crossarm 1124279
RWY. & Ind. Eng.	Crossarm 1124274
	Crossarm 1124275
Schweitzer & Conrad	Crossarm 1640 (protectolink)
	Crossarm 1452-4
Rwy. & Ind. Eng.	Crossarm 19862
	Crossarm 20066
Southern States	Crossarm 6861LK
	Crossarm 59991-K (open-link)
Porcelain Products	Crossarm 373601
	Cutout without bracket 2711
	Crossarm bracket Type C
Joslyn	Crossarm 2731
	Crossarm Type C
<u>100 Amps.</u>	

(As required by REA, these cutouts meet NEMA "Power Switching Equipment Standards")

KV Class	15	23	34.5	46	69
<u>Manufacturer:</u>	<u>Type:</u>	<u>Catalog Number:</u>			
General Electric	Fiber tube, drop-out Gas deflectors Fuse unit	6129026G2 6029680P1 EG-1	6129026G3 Same for all classes Same for all classes	6129026G4 - -	6129026G5 - -
Westinghouse	Fiber tube, drop-out Fiber tube, drop-out BA-200 De-ion mounting BA-200 fuse holder LBA-1 drop-out	1081042 1081043 825627 ∅ 825630 ∅ 1227172	- - 825628 ∅ 825631 ∅ 1227173	- - 1043289 ∅ 1043291 ∅ 1227174	- - - - ∅ 1227175
Schweitzer & Conrad	Fiber tube, drop-out Fiber tube, drop-out High capacity liquid Clips	68062 68161 *21742 UC	68063 68163 *21743 Same for all classes	- - *21744 *21745	- - - *21746
Line Material	Fiber tube, drop-out Fiber tube, drop-out High capacity liquid	C230081-11 C230081-12 **B68048	- - - Same for all classes	- - - -	- - - -
Kearney	Fiber tube, drop-out	6445	5759	5764	-
Matthews	Fiber tube, drop-out	1358-5	1368-5	-	-
Ray. & Ind. Eng.	Fiber tube, drop-out	19882	19883	-	-
Delta Star	B-3V Form 34	672321-4-S	672331-4-S	672351-4-S	672361-4-S
					672382-4-S

* Is number of fuse mounting only. Fuses and clips must be ordered separately.

** Is number of fuse mounting only. Fuses and clips must be ordered separately. Use S & C fuses and clips.

∅ Is style number of fuse mounting and fittings only. Fuse must be ordered separately.

∅∅ Is style number of fuse holder only. Refill must be ordered separately.

ag - Cutout, fuse, 3-shot, open-line Sectionalizing

Voltage Rating
Current Rating

7.2/12.5-KV.
50-amp.

7.2/12.5-KV.
100-amp.

Manufacturer:

Mounting:

Catalog Number:

Kearney

Crossarm

6867-1
7449

Line Material

Crossarm

C-230033-10 (RLC Type)

Schweitzer & Conrad

Crossarm
Double Crossarm

68651-K
9A24501-S

68651-K

Rwy. & Ind. Eng.

Crossarm

-
23628

Southern States

Crossarm

14701

14701-C

Matthews

Crossarm

1810

1810-X

EG - Cutout, fuse, 3-shot, open-Substation

Voltage Rating
Current "

15-Kv.
50-amp.
100-amp.

Manufacturer:

Kearney

Mounting:

Channel Base

Catalog Number:

6875-1

C-230015-14

68332-S

23937

177101

Line Material
Schweitzer & Conrad

68322-S

Rwy. & Ind. Eng.

Southern States

177101

Matthews

1840

Note: In accordance with REA requirements, the cutouts above conform to "N.E.M.A. Power Switching Equipment Standards."

<u>Manufacturer:</u>	<u>Cutout</u>	<u>Pole</u>	<u>Crossarm</u>	<u>Pole</u>	<u>Crossarm</u>	<u>Pole</u>	<u>Arrester</u>
General Electric	Cutout number includes bracket						Arrester number includes bracket
Kearney	Cutout number includes bracket						-
Line Material	Cutout number includes bracket						Arrester number includes bracket
Westinghouse	1124274		1124276		1087204		10872404
Matthews	Cutout number includes bracket		-		-		-
R. & I. E.	Cutout number includes bracket		-		-		-
Schweitzer & Conrad	Cutout number includes bracket		-		-		-
Southern States	Cutout number includes bracket		-		-		-
Joslyn	-		9207		9203-C		
Electric Service	-		Type DH		Type D&L		

Ground Rods

Diameter (inches)

5/8
85/8
95/8
103/4
123/4
161
161
181
20Manufacturer:

Hubbard (Cu. Wld)

9438

9439

9440

9452

9456

9458

9476

9478

Oliver (Cu. Wld)

Same as "Hubbard"

Joslyn (Cu. Wld)

8338

8339

8340

8352

8356

8358

8376

8378

Line Material

(Bridgeport)

119952

119953

119954

119961

119989

119991

119996

119998

Locke (Cu. Wld)

8438

8439

8440

8452

8456

8458

8476

8478

Anaconda

GR1848

GR1849

GR18410

GR18512

GR18516

GR18518

GR18716

GR18718

Phelps Dodge

BR38

BR39

BR310

BR412

BR416

BR616

BR618

Util. Service (Cu. Wld)

5617

5618

5619

5637

5641

5643

5656

5658

Ideco

CT508

CT509

CT510

CT612

CT616

CT618

CT816

CT818

M. & W. Elec. Mfg.

1000*

Butt Grounds

Joslyn Preformed Ground - #6 Copper, 8 turns

Mastergrip "Groundex" plate ground - MX 760

* War Standard Item (acceptance good for duration and ninety days thereafter).

aj - Clamp, ground rod

Size (rod diam. inches)

5/8"

3/4"

1"

Manufacturer:

Catalog Number:

Hubbard

6492

6493

9495

Oliver

Same as "Hubbard"

8395

Joslyn

3993

3993

9997

Line Material

126492

126493

8395

LMCO 5/8

LMCO 3/4

9997

Locke

5592

5593

8495

GRIS-5

GRIS-6

GRIS-8

E58

E68

GE635

GE64

GH65

GF-17

GG-5/8

GG-3/4

6667

5668

5669

TC53

TC54

TC56

WB5/8

WB3/4

GCL01-01

GCL01-02

GCL01-03

85

Same numbers as Locke

9957-11

9957-12

K & H

12244-aj

Seyler

Kearney

al - Staples, ground wire

Required Dimensions
9 Ga. x $1\frac{1}{2}$ " long x 3/16" spread

Manufacturer:

Catalog Number:

Hubbard	8533
Joslyn	1671
Line Material	9802
Locke	7511 3/4
Oliver	9792
Util. Serv.	-
Copperweld	-
Electrical Mfg. Co.	652

an - Transformer, distribution, 7.2/12.5-kv

KVA Capacity:

--

1 $\frac{1}{2}$

3

5

7 $\frac{1}{2}$

10

15

Manufacturer:

HAE

Catalog Number:

General Electric

HA or HSA (with LA & Bushing

31H737

31H738

31H739

31H740

31H741

31H742

Mtd. open-type cutout)
HA or HSA (with LA & Bushing

31H782

22H783

22H784

22H785

22H786

22H787

H Rural
HBA Rural

21H634

21H665

21H666

21H667

21H668

21H669

H with Int. Fuse
H with Int. Fuse & Open Gap

22H450

22H451

22H452

22H453

22H454

22H455

Rural RR

6139RR

6140RR

6141RR

6142RR

6143RR

6144RR

RRFG with Int. Fuse & Open Gap

6139RRFG

6140RRFG

6141RRFG

6142RRFG

6143RRFG

6144RRFG

Line Material

LA Rural

11T1R

11T2R

11T3R

11T4R

11T5R

11T6R

CSP

11T1R3i

11T2R3i

11T3R3i

11T4R3i

11T5R3i

11T6R3i

LA with Int. Fuse
LA with Int. Fuse & Open Gap

L-11T1RF

L-11T2RF

L-11T3RF

L-11T4RF

L-11T5RF

L-11T6RF

Moloney

HE Pivot

CSF

Order by description and rating
Order by description and rating

Wagner

HEB-F
HEB-F with Int. Fuse
HEB-F with Int. Fuse & Open

Gap

HEB-F-EP

HEB-F-P

Refer to drawing No. TC-16342

Refer to drawing No. TC-16623

Refer to drawing No. TC-17152

HEB-F with Int. Fuse & Open
Gap

HEB-F-EP

HEB-F-P

Refer to drawing No. TC-16342

Refer to drawing No. TC-16623

Refer to drawing No. TC-17152

Westinghouse

S, Class-B-2
CSP, "

S with Int. Fuse

S with Int. Fuse & Open Gap

106-003 206-003 306-003 406-003 506-003 606-003

106-203 206-203 306-203 406-203 506-203 606-203

106-703 206-703 306-703 406-703 506-703 606-703

106-803 206-803 306-803 406-803 506-803 606-803

Standard

AR

Order by description and rating.

Specify round tank.

ao - Bolt, thimbleye, straight

Size (in. diam. x in. lg.)

5/8x8

5/8x10

5/8x12

Manufacturer:

Catalog Number:

Hubbard

6508

6510

6512

6608

6610

Joslyn

8050

8051

8052

8060

8061

8062

Chance

5885

58105

58125

3485

34105

34125

Line Material:

Same as "Chance" with prefix "GC."

Locke

5508

5510

5512

5608

5610

5612

Oliver

6748

6750

6752

6848

6850

6852

Util. Service

5127

5128

5129

5134

5134A

5135

Seyler

Same numbers as "Locke"

3215

3216

3217

3235

3236

3237

Kortick
Electrical Mfg. Co.*

S508

S510

S512

S608

S610

S612

* Strand eye

ap - Clamp, hot line

<u>Copper Conductor</u>	00x7	00	0x7	0	2x3	2	4	6	
<u>Gauge</u>	0.414	0.365	0.368	0.325	0.320	0.258	0.204	0.162	
<u>Diameter, inches</u>									
<u>Manufacturer:</u>									
Tips	S1725CC	S1725CC	S1725CC	S1725CC	S1725CC	S1715CC	S1715CC		
Fargo	XK9C	Same for all sizes							
Line Material	Same as Fargo								
Burndy	HME 262C	Same for all sizes							
Kearney	1700-20	1700-20	3517	3517	3517	3517	3517		
Fulton Sylphon Co.	-	-	-	-	701	701	701		
Weaver	WS or WSB	Same for all sizes							
Southern States	WC-50-48	WC-50-48	WC-50-48	WC-50-48	WC-50-48	WC-50-48	WC-50-48		
Matthews	5944	Same for all sizes							
Mastergrip	Same numbers as Weaver								
Bodendiek	425CC	425CC	425CC	425CC	400CC	400CC	400CC		
Delta Star*	LGE-101	Same for all sizes							
Reliable	596C	596C	596C	596C	328C	328C	328C		
Royal Electric	10700	Same for all sizes							

* For use on substations only.

ap - Clamp, hot line

<u>Cwld.-Copper Conductor:</u>	<u>Gauge</u>	<u>Diameter, inches</u>	<u>4A</u>	<u>6A</u>	<u>8A</u>	<u>8C</u>	<u>9½D</u>	<u>40% HS</u>
	3#6	0.349	0.290	0.230	0.199	0.179	0.174	3#12
								0.174
<u>Manufacturer:</u>								<u>Catalog Number:</u>
Tips			S1725CC	S1715CC	S1715CC	S1715CC	S1715CC	S1715CC
Fargo		XK9C			Same for all sizes			
Line Material			Same as Fargo					
Burndy		HTE 262C			Same for all sizes			
Kearney		3517			Same for all sizes			
Weaver		WS or WSB			Same for all sizes			
Southern States		WC-50-48	WC-50-48	WC-50-48	WC-50-48	-	-	-
Matthews		5944			Same for all sizes			
Mastergrip			Same as Weaver					
Bodendieck		425CC	400CC	400CC	400CC	400CC	400CC	400CC
Delta Star*		LGE-101			Same for all sizes			
Fulton Sylphon Co.		-	701	701	701	701	701	701
Reliable		596C	328C	328C	328C	328C	328C	328C
Royal Electric		10700			Same for all sizes			

* For use on substations only

ap - Clamp, Hot line

A.C.S.R.

Gauge

Diam., inches, bare
Diam., inches, plus rods

2/0-6/1 1/0-6/1 2-7/1 2-6/1 4-7/1 4-6/1
0.447 0.398 0.325 0.316 0.257 0.250
0.835 0.744 0.595 0.586 0.555 0.548

Manufacturer:

Tips

AA*
AC*

S1735AA
S1735AC

S1720AA
S1720AC

S1720AA
S1720AC

S1720AA
S1720AC

S1720AA
S1720AC

S1720AA
S1720AC

Fargo

AA*
AC*

-
-

K6A
K6AC

XK9A
XK9AC

XK9A
XK9AC

Line Material

Burndy

AC*

HTE40R25

HTE30R25

HTE30R25

HTE30R25

Kearney

AA*
AC*

3520-2
3520-1

1700-21
1700-22

1700-21
1700-22

1700-21
1700-22

Bodendieck

AA*
AC*

625AA
635AC

530AA
530AC

530AA
530AC

530AA
530AC

Johnson

AA*
AC*

J450

J450A

J450A

J450A

Same as for AA* except add suffix "C"

Weaver

AA*
AC*

WSB-C

Same for remaining sizes
Same for remaining sizes

Southern States

AA*
AC*

WA-56-50
WB-56-50

WA-56-50
WB-56-50

WA-50-48
WB-50-48

Mastergrip

Same as Weaver

AA* - Indicates connection from Al over armor rods to Al.

AC* - Indicates connection from Al over armor rods to Cu. or Cwld.

ap - Clamps, hot line

<u>A.C.S.R.</u>	<u>2/0-6/1</u>	<u>1/0-6/1</u>	<u>2-7/1</u>	<u>2-6/1</u>	<u>4-7/1</u>	<u>4-6/1</u>
<u>Manufacturer:</u>						
<u>Reliable</u>						
	<u>AA</u>					
<u>Catalog Number:</u>						
	<u>596CP</u>		<u>596CP</u>		<u>596CP</u>	<u>596CP</u>

ap - Clamp, hot line

(As recommended by conductor manufacturers)

Amerosteel, Crapo & Ruraductor

4 6 8

Ameraductor Conductor

Gauge

4

6

8

9X

10

12

Diam., inches

0.310

0.248

0.196

0.216

0.192

0.220

0.175

Manufacturer:

Kearney

AA
AC

1700-21
1700-22

3517-1
3517-2

Same for remaining sizes
Same for remaining sizes

Chance

AA
AC

S-1725AA
S-1725AC

Same for remaining sizes
Same for remaining sizes

Line Material
(Chance)

AA
AC

S-1725AA
S-1725AC

Same for remaining sizes
Same for remaining sizes

Reliable

328GP

Same for remaining sizes

Bodendieck

425GP

Same for remaining sizes

Catalog Number:

10

12

ar - Wire Holder

Type
With #22 Wood Screw

With 3/8" x 5" Bolt

Manufacturer:

Catalog Number:

7-11-72

079

3-8-5

3-11-44

089
090

3-3-3
3-4-3

0611-42

0611-46

1970
1980

2515
2510

1100

Same as Lectrolite

1945

1947

3-11-44

8516

70

Kearney

Elec. Mfg. Co.

Seyller

Mastergrip

Lectrolite

Util. Serv.

Hubbard

Joslyn

Line Material

Locke

Porc. Prod.

Oliver

Force Prod.

Line Material

Line Material

Line Material

Line Material

Line Material

as - Clevis, service, swinging, insulated

Manufacturer:

Catalog Number:

<u>Insulator</u>	<u>Clevis</u>
Hubbard	2938 2948
Joslyn	1624 1626
Line Material	102938 ---
Locke	1938 1948
Forc. Prod.	5107 5207 1990 ---
Oliver	4440 4441
Util. Serv.	31003 31004
Electrical Mfg. Co.	617 647
Seyler	Same numbers as Locke

at - Guy Guard

Description

Full Round, 8 ft. long x 18 ga. min.

Manufacturer:

Hubbard

7658

Joslyn

1618

Line Material

SD-128
SD-128-MB

Locke

6598

Oliver

1385

Specialty Devices

8180SG
8180MB

Util. Service

8118

Matthews

8118

Kearney

5286-1

Seyler

6598

Kortick

SD28SP

Weaver

Catalog Number:

ba - Bolt, thimbleye, angle

Size (in. diam. x in. lg.)

5/8x8 5/8x10 5/8x12

3/4x8

3/4x10

3/4x12

Manufacturer:

Hubbard

6008

6010

6012

6108

6110

6112

Joslyn

8150

8151

8152

8160

8161

8162

Chance

5885A

58105A

58125A

3485A

34105A

34225A

Line Material

Same as "Chance" with prefix "CC"

Locke

5008

5010

5012

5108

5110

5112

Oliver

7650

7651

7652

7750

7751

7752

Util. Service

5140

5140

5142

5146

5147

5148

Seyler

Same numbers as Locke

Electrical Mfg.*

3255

3256

3257

3275

3276

3277

S508A

S510A

S512A

S608A

S610A

S612A

* Strand eye

Catalog Number:

bb - Brace, sidearm vertical
24-in. spacing

bc - Bracket, pole, primary

<u>Manufacturer:</u>	<u>Catalog Number:</u>
Hubbard	7986
Joslyn	1536
Line Material	9271
Locke	6986
Oliver	5163
Util. Service	5249
Mastergrip	M7986
Inter. Derrick & Equipment Co.	14040
Electrical Mfg. Co.	766
Seyler	6986
Kortick	1931

be - Circuit Breaker, 3-shot, automatic Oil

Manufacturer:

Catalog Number:

	7.2/12.5 kv	15 kv
1- ϕ	3- ϕ	1- ϕ
General Electric	FP-119	FP-119
Pacific Electric	AP-1-1T	AP-1-3T
Westinghouse	AR-1*	AP-2-1T
Line Material	HAL-C	AP-2-3T AP-40-3

* Specify Amp. rating desired.

bh - Clevis, service deadend, insulated

Manufacturer:

Hubbard 1341

Joslyn 0341

Line Material 1757

Locke 0341

Oliver 4410

Porcelain Products 1442

Util. Service 31136

Mastergrip 901

Thomas 13205

Elec. Mfg. Co. 600

Seyler 0341

bj - Guy hook

4" x 1-3/4" x 3/8", 11/16" hole

Manufacturer:

Hubbard

Joslyn

Line Material

Locke

Oliver

Util. Service

Mastergrip

Inter. Derrick &
Equipment Co.

Electrical Mfg. Co.

Seyler

Kortick

Catalog Number:

7584

1019

9502

6584

9041

5310

M7584

14611

835

6584

4031

Manufacturer:Catalog Number:

Strain type
4" x 8" x 14 gauge

Lift type
2 $\frac{1}{2}$ " x 7" x $\frac{1}{4}$ ", 2 hole

Hubbard

7575

8888

Joslyn

1034

7894

Line Material

9515

CC434

Locke

6575

7888

Oliver

9050

6967

Util. Service

5351

C334

Mastergrip

M7575

-

Inter. Derrick & Equip. Co.

14160

-

Electrical Mfg. Co.

585

525

Seyler

6575

7898 (3 hole)

Kortick

4015

3511

bl - Thimble, Dead-End
(For A.C.S.R. only. See note on Drwg. M42-10)
All items listed shall have 5/8" cotter bolts

Manufacturer:

Hubbard

675

Joslyn

565

Line Material

SAGX1 (M.1.)
SAGX2 (Alum.)

Locke

80425
575

Forc. Prod.

Oliver

4258

Util. Serv.

31257

Ohio Brass

80425

Aluminum Co.

Brewer - Titchener

2400

Seyler

80425
575

Catalog Number:

bm - Thimbles, guy 5/8 in.
(For use on Cu., Cwld., A.C.S.R., Amerductor, Amersteel, Ruraductor and Crapo Deadends)
(See Dwgs. M42-1, M42-2, and M42-10)

Manufacturer:

Catalog Number:

Hubbard	7595 7695
Joslyn	J1059 *575 (combination thimble and clevis)
Line Material	9507 *1747 (combination thimble and clevis)
Locke	6595 *573 (combination thimble and clevis)
Oliver	9032
Util. Service	5411
Mastergrip	M7595
Inter. Derrick & Equip. Co.	14622
Seyler	6595
Kortick	4063

* This combination includes both the guy thimble and the anchor shackle "bo."

bn - Clamp, loop deadend
(For A.C.S.R. only. See Pg. M42-10).

Aluminum Conductor

Gauge	2/0-6/1	1/0-6/1	2-7/1	2-6/1	4-7/1	4-6/1	6-6/1
Diam. Bare (inches)	0.447	0.398	0.325	0.316	0.257	0.250	0.198

Manufacturer:

Hubbard	-	-	4466	4466	4466	4466	-
Joslyn		J1413	J1412	J1412	J1412	J1412	-
Line Material		-	CL9x1	CL9x1	CL9x2	CL9x2	-
Alum. Co. of Amer.	413	412	412	411	411	411	-
			412	412	412	412	-
Anderson	LC703-3	LC702-2	LC-71	LC-71	LC-71	LC-71	LC-71
Locke	-	-	3466	3466	3466	3466	-
Seyler	Same numbers as Locke						

Catalog Number:

bo - Shackles, anchor
(For use on Cu., Cwld., A.C.S.R. and Amerductor deadends
See Dwg. M42-1, M42-2, and M42-10)
All items listed shall have 5/8" cotter bolts

Manufacturer:

6801

Hubbard

Joslyn

Line Material

Locke

Util. Service

Ohio Brass

Westinghouse

Jeffery-Dewitt

Thomas

Brewer Titchener

Seyler

Kortick

* This combination includes both the guy thimble "bo" and the anchor shackle.

Catalog Number:

LL349
*575 (combination thimble and clevis)

V3020
*1747 (combination thimble and clevis)

5801
*573 (combination thimble and clevis)

1435

4106

13722

437079-A

1650
1641

5490 T-3

3022

5801
*573 (combination thimble and clevis)

bs - Bolts, single upset, insulated
 (For use on neutral conductor only)
 (See Dwg. M25-1 and M25-2)

Manufacturer:

	<u>Insulator (wet process)</u> <u>1-3/4" Groove 3" Groove</u>	Bolt diam. 6"	5/8" 6"	5/8" 7"	5/8" 8"	5/8" 9"	5/8" 10"
Hubbard	455	1716	-	-	8741	-	8742
Joslyn	151	0101	-	-	2342 $\frac{1}{2}$	2343 $\frac{1}{2}$	2344 $\frac{1}{2}$
Line Material	684	693	-	-	-	1401-2	1402-2
Locke	355 24205	0716	7739	7740	7741	7741 $\frac{1}{2}$	7742
Oliver	2100	2104	-	-	7508	7509	7510
Util. Service	205	-	-	-	31053	-	31054
Lewis	-	-	-	-	7508	7509	7510
Electrical Mfg. Co.	-	-	-	-	U508	U509	U510
Seyler	Same numbers as Locke						

cf - Racks, service, insulated

Manufacturer:

	<u>Catalog Number:</u>	<u>g-in. Spacing</u>
	<u>2-wire</u>	<u>3-wire</u>
Hubbard	2748	3748
Joslyn	2648	3648
Line Material	21028	21038
Locke	1748	2748
Oliver	2328	2338
Lectrolite	2002	2003
Mastergrip	Same as Lectrolite	
Electrical Mfg. Co.	5280	5380
Seyler	Same as Locke	

cg - Switches, pole top, air-break, gang-operated
(Switches must conform with NEMA "Power Switching Equipment Standards")

Manufacturer:

Kv. Amp.

2-Insulator Catalog Number:

3-Insulator Catalog Number:

<u>Manufacturer:</u>	Kv.	Amp.	2-Insulator Catalog Number:	3-Insulator Catalog Number:
Schweitzer & Conrad	15*	200	49222-Spl.	49232
	15	400	49422-Spl.	49432
	23	200	49223-Spl.	49233
	23	400	49423-Spl.	49433
	34.5	200	49224-Spl.	49234
	34.5	400	49424-Spl.	49434
Over	34.5			
Westinghouse	15*	200	1114674**	1114662**
	15	400	1123855	1392124
	15	600		1392125
	23	200	1114676**	1114667**
	23	400	1123858	1392128
	23	600		1392129
	34.5	200	1114677**	1114668**
	34.5	400	1123864	1392132
	34.5	600		1392133
	46	600		1392136
	69		1392138	
Rwy. & Ind. Eng.	15*	200	23363***	22776**
	23	200	23364***	22777**
Line Material	34.5	200	23366***	22779**
	15*	400		
	23	200		
	23	400		
	34.5	200		
	34.5	400		
	34.5	600		
	46	600		
Electric Power Equip. Corp.	15*	200	35161-S	35171
	23	200	35162-S	35172
	34.5	200	35163-S	35173

* Use 15 Kv switches on 7.2/12.5 Kv Wye voltages.

** Order with NEMA Standard insulators and steel shaft.

(cg)

Manufacturer:Catalog Number:

<u>Kv.</u>	<u>Amp.</u>	<u>2-Insulator</u>	<u>3-Insulator</u>
Delta Star.			
15*	200	623320Spl.	625320Spl.
"	400	528010Spl.	900310
23	200	623330Spl.	625330Spl.
"	400	528020Spl.	900320
34.5	200	623350Spl.	625350Spl.
"	400	528035Spl.	900340
46	400	528040Spl.	
Memco			
15*	200	18772A	18742
23	400	18773A	18472
34.5	400	18775A	18474
46	400	18315A	18475
"	400		18477
General Electric			
15*	200	605236662	605236262
"	400	605275766	605275762
23	200	605236663	605236263
"	400	615920263	615920063
34.5	200	605236665	605236265
"	400	615920264	615920064
46	600	6159200611	
"	600	6159200612	
Southern States			
15*	200	30404Spl.	30504
"	400	30405Spl.	30505
23	200	30408Spl.	30508
"	400	30409Spl.	30509
34.5	200	30416Spl.	30516
"	400	30417Spl.	30517
"	600	30418Spl.	30518
46	600	30520	
"	600	30524	

* Use 15-Kv. switches on 7.2/12.5-Kv. Wye voltages

(c8)

Manufacturer:

Catalog Number

* Use 15 Kv switches on 7.2/12.5 Kv Mye voltages

Note: When ordering Pacific Elec. Mfg. Co.'s 2-insulator switches, state that extension link for supporting pantograph must be supplied as part of switch.

ch - Fuse links

Whenever possible, the following recommendations in regard to fuse links should be observed.

- (1) That the cutouts and links on a project be of the same manufacture.
- (2) That only one make of cutout and fuse link be installed on a project in order to obtain the best possible fuse coordination.

ci - Clevis, thimble, side-opening
All items listed shall have 5/8" cotter bolts
(For use on Cu. or CuWeld-Cu., Amerductor or Steel only, as shown on Drwg. M41-1)

Numbers listed will accommodate:

#6- #2/0x7, Solid Copper
3#12- 3#6, Copperweld Copper
#12- #4, Amerductor

Manufacturer:

Hubbard

674

Joslyn (Pinco)

1-4096

Victor (Line Material)

V-2282

Locke

42400

Oliver

-

Porc. Prod.

7532

Util. Service

-

Ohio Brass

82825

Thomas

15051

Jeffery-Dewitt

5028

Westinghouse

968755

Electrical Mfg. Co.

595-T

Seyler

574

Lapp

22525

Catalog Number:

674

1-4096

V-2282

42400

-

7532

-

82825

15051

5028

968755

595-T

574

22525

12244-
ci

ck - Clamp, Anchor Rod Bonding

5/8" 3/4" 1"

Manufacturer:Catalog Number:

Habbard	4143	4143	4143
Single eye	"	4145	"
Twineye	"	"	"
Joslyn	3230	3230	3230
Single eye	"	3231	3232
Twineye	"	3233	3233
Tripleye	"	"	"
Line Material	A221004-1	A221004-1	A221004-1
Single eye	A221005-1	A221005-1	A221005-1
Twineye	"	"	"
Locke	3143	3143	3143
Single eye	"	9143	9143
Twineye	"	"	"
Chance	65060	65060	65060
Single eye	"	"	"
Twineye	"	65061	65061
Seyler	Same numbers as Locke		
Oliver	9123	9123	9123
Single eye	"	9122	9122
Twineye	"	"	"
	12244-ck		

c1 - Gap, Lightning Protection

(Accepted use only in conjunction with Oil Circuit Breakers and
Conventional Transformers.)

Manufacturers:

Jas. R. Kearney Company
Line Material Company
W. N. Matthews Corporation

Type:

Trip-O-Gap
Double Spill Gap
SGF Expulsion Gap
Ring Gap

Catalog Number:

12525-5
12823
C-305189-4
6059

cm - Insulator, spool

Type: <u>Groove Diam.</u>	Secondary	<u>3"</u>	Service
<u>Manufacturer:</u>			<u>1-3/8"</u>
	<u>Catalog Number:</u>		
Hubbard	1455	1716	1606 (dry)* 1706 (wet)*
Joslyn	151	0101	100 (dry)* 150 (wet)*
Line Material	684	693	670 (dry)* 674 (wet)*
Locke	24205 355	0716 33013	0606 (dry)* 0608 (wet)*
Oliver	2100	2104	2300 (dry)* 2400 (wet)*
Electrical Mfg. Co.	210	218	201 (dry)* 211 (wet)*
Westinghouse	815681	1028123	881845 (dry)* 881844 (wet)*
Ill. Elec. Found.	101	96	100DP (dry)* 100WP (wet)*

* "Wet" and "Dry" designations refer only to service spools.

All secondary spools listed are wet process.

Type:
Groove Diam.

1 3/4" Secondary 3" (cm)

Service
1 3/8"

Manufacturer:

Manufacturer	Catalog Number	Service
Porc. Prod.	5101	
Util. Serv.	205	
Lectrolite	6000	
Jeffery, Dewitt Insulator Co.	2383	5119 5107 (dry)* 5207 (wet)*
Mastergrip	6000	207 (dry) 208 (wet)
Ohio Brass	36361	5001 (dry) 6001 (wet)
Thomas	5897W	2379 (wet)
Seyler	24205 355	36139 (wet)
	0716	12202 6997 D (dry) 6997 W (wet)
		0606 (dry) 0706 (wet)

* "Wet" and "Dry" designations refer only to service spools.
All secondary spools listed are wet process.

(co)

Secondary Fuses, Cutouts

<u>Manufacturer:</u>	<u>Refuseable Type</u>	<u>Non-Refuseable Type</u>
	<u>Catalog No.</u>	<u>Catalog No.</u>
Line Material	FUA1503	CTS

W. N. Matthews Corp.

2100-1

General Electric Company

9F741

Schweitzer and Conrad

221120

Bussman

JAB

cp - Sleeve, compression deadend

Copper & CWC

Gauge	2x3	4	6	6A	8A	8C, 9 $\frac{1}{2}$ D, 3 #12
Diam. (inches)	.320	.204	.162	.230	.199	.174
Nat. Tel. Sup. Co.	71-258/3x	71-204-P	71-162J	71-6A-P	71-8A-P	71-3/081 M

Anerductor

Gauge	4	6	8	8X	9X	10	12
Diam. (inches)	.310	.248	.196	.216	.192	.220	.175
Nat. Tel. Sup. Co.							

Ruralductor

Gauge	4	6	8			
Diam. (inches)	.297	.252	.207			
Nat. Tel. Sup. Co.	75-238/3W	75-203/3S	75-165/3L			

cq - Sleeve, offset splicing
(For use on secondary deadends only)

Copper & CWC:

Gauge Diam. (inches)	2x3	4	6	6A	8A	8C, 9 $\frac{1}{2}$ D 3#12 .174
Nat. Tel. Sup. Co.	.320	.204	.162	.230	.199	91-204-P 91-162J 91-6A-P 91-8A-P 91-3/081M

cx - Sleeve, splicing, single oval tube

Copper & Copperweld Copper:

Gauge	0x7	2x3	4	6	6A	8A	8C	9 $\frac{1}{2}$ D	3 #12
Diam. (inches)	.368	.320	.204	.162	.230	.199	.179	.174	.174

Manufacturer:

Wolverine	ST 7	ST 8	ST 12	ST 13	ST 11	ST 12	ST 20	ST 20	ST 20
Burnby	VS 25	VS 20	VS 5C	---	VS 6A	VS 8A	VS 8A	VS 8A	VS 8A
Memco.	63	62	58	56	170	168	157	118	118
Penn Union	130	129	125	124	C126	C125	C125	C125	C125
Sherman	016	015	011	09	C012	C010	W010	W010	W010
Reliable	Order by description and size								
Util. Service	99763	99765	99768	99769	99767	99768	99776	99776	99776
Line Material									
Nat. Tel. Sup. Co.	Order by description and size	169	158	156	433	431	438	440	449
Pekcu	170								

A.C.S.R.

Gauge	2/0 - 6/1	0 - 6/1	2 - 7/1	2 - 6/1	4 - 7/1	4 - 6/1	6 - 6/1
Diam. (inches)	.447	.398	.325	.316	.257	.250	.198
Alum. Co. of Amer.	529	540	542	544	544	544	546

cy - Sleeve, splicing, compression type

Copper & Copperweld Copper:

Gauge	0x7	2x3	4	6	6A	8A	8C	9 $\frac{1}{2}$ D	3#12
Diam. (inches)	.368	.320	.204	.162	.230	.199	.179	.174	.174

Manufacturer:

Nat. Tel. Sup. Co.	—	1-258/3x	1-204-B	1-162J	1-6 A-P	1-8 A-P	1-3/081M	1-3/081M	1-3/081M
Kearney. (ABC)	ML-1/0-1	ML-2-1	ML-4	ML-6	MLC-61	MLC-81	—	—	—

<u>ACSR</u>										
Gauge	2/0	6/1	0	6/1	2	7/1	2	6/1	4	7/1
Diam. (inches)	.447		.398		.325	.316	.257		.250	.198

Manufacturer:

Nat. Tel. Sup. Co.

ORDER BY SIZE AND DESCRIPTION

Amerductor:

Gauge	4	6	8	8X	9X	10	10	12	12
Diam. (inches)	.310	.248	.196	.216	.192	.220	.220	.175	.175

Manufacturer:

Nat. Tel. Sup. Co.

2-8SC-F

Feraductor:

Gauge	4	6	8	8X	9X	10	10	12	12
Diam. (inches)	.297	.252	.207						

Manufacturer:

Nat. Tel. Sup. Co. 5-238/3W 5-203/3S 5-165/3L

CZ - Sleeve, splicing, double tube

Amerductor:

Gauge	4	6	8	8X	9X	10	12
Diam. (inches)	.310	.248	.196	.216	.192	.220	.175

Manufacturer:

McIntire	1059-A	1061-A	1064-A	1061-x	-	1060-A	1010-A
Nat. Tel. Sup. Co.	4004	4006	4008	4008X	-	4010	4012
Joslyn	4006*	4006*	4006*	-	-	-	-

* War Standard Item, acceptable for duration and ninety days thereafter.

Ruralductor:

Gauge	4	6	8
Diam. (inches)	.297	.252	.207

Manufacturer:

McIntire	SCP4	SCP6	SCP8
----------	------	------	------

